

TIMELINE OF MOTOR CYCLING

Volume Five

1920 - 1924



**Compiled & edited by
Dave Richmond**

Compiled, edited and written by Dave Richmond
motorcyclimeline.com

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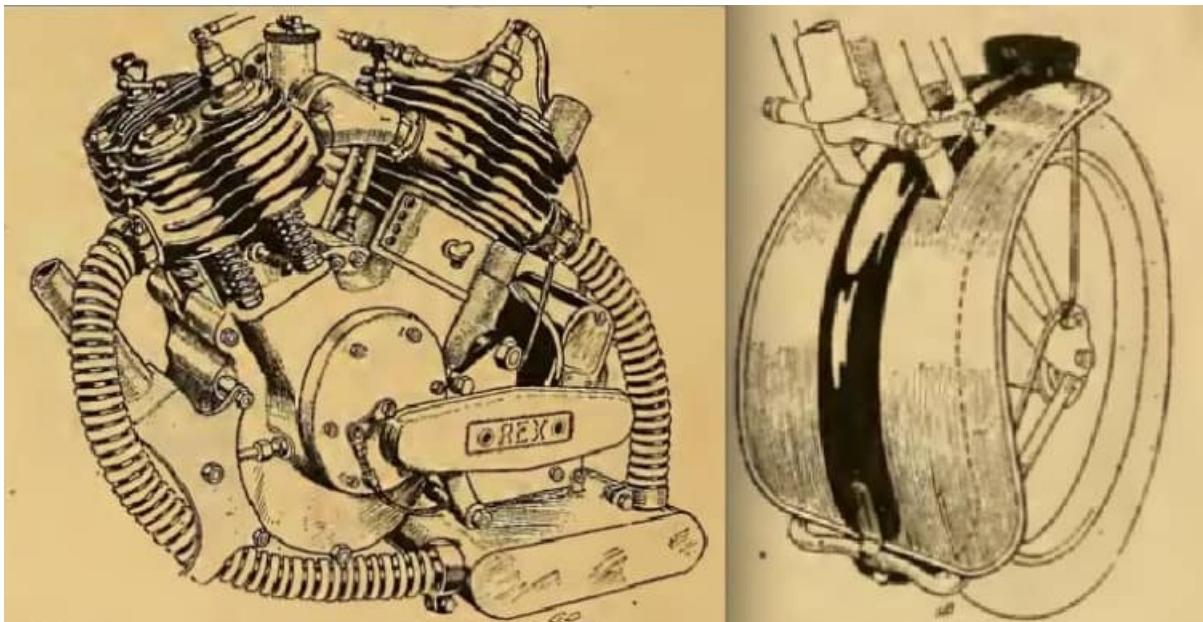
1920

IXION WAS ON GOOD FORM: "As our old readers know, I am an unrepentant heretic on the subject of silent machines, and as such am boycotted by the rest of our editorial staff. My chief excuse is that I am a country mouse, and whenever possible reside away from roads which are designed with a straight-edge and infested by trams. On my way home recently, for example, I negotiated no fewer than eleven absolutely blind corners. On roads of such a character noise is the only valid insurance. It is good for me to make as much noise as I can, and if I meet another fellow near any of these corners, I prefer his machine to be as noisy as possible...I have not the least wish to ride a noisy machine where noise is useless. My own ideal is three-fold. I should wish my buses to be: 1. Genuinely noisy when noise is, in my discretion, a safeguard. 2. Absolutely noisy when noise is, in my discretion, a safeguard. 3. Free from mechanical noise at all times. My present mount makes a moderate noise at all times; and 50% of its noise is mechanical noise. Wherefore from my standpoint it is just about as bad as a machine can be. One of my neighbours has an Indian which on small throttle openings creates no sound beyond the mild swish of well-lubricated chains. I often wish the fellow's silencer would fall off. He is a daring cornerist, and has little use for a hooter. If he does not die or move presently, I shall. Anyhow, if and when the powers that be compel us all to ride machines which are dead silent I shall emigrate."

"THOSE WHO HAVE ONLY JOINED the motor cyclists' fraternity during the past few years find it difficult to realise that about fifteen years ago the motor cycle was threatened with extinction. It had been tried by a comparatively large number of makers, but in its early state of development it was found wanting, and was dropped out of their programmes. A small 'handful' of makers and *The Motor Cycle*, however, had sufficient confidence to 'carry on' against obstacles and prejudice. Among these firms the Rex Motor Manufacturing Co was one of the best known, and, although it made both singles and twins, it is for the latter type that the company is better known by latter day motor cyclists. Following the introduction of the Rex sidecar 'single', the old-established Coventry firm has now produced a twin on similar lines...The new model is a distinct departure from the pre-war twin Rex. It is larger all round, is fitted with 28x3in quickly detachable and inter-changeable wheels, and carries a 'spare' at the rear of the sidecar boot...The silencer pipes are of flexible tubing, bending in clean sweeps to a flat metal expansion chamber of large size, which is carried under the magneto carrier. From the engine to the Sturmey-Archer three-speed gear box the drive is by chain enclosed in a cast aluminium case, thence the drive is by belt to a separately built pulley wheel supported on its own ball bearing, which remains in position when the rear wheel is removed for tyre repairs...All wheels are well mudguarded, and as an 'extra' a pair of patented detachable winter guards is supplied for affixing to the valances of the front wheel guard. These increase the width of the guard by 400%...Plated parts are conspicuous by their absence, the handle-bar being finished black, as are most of the fittings. The Rex cantilever spring saddle-pillar is fitted as on the single-cylinder model, which it also follows as regards colour scheme, the tank being black with purple panels. Most of the structural features of the 'single' are retained in this new model, which, incidentally, will be known as the Model 66."



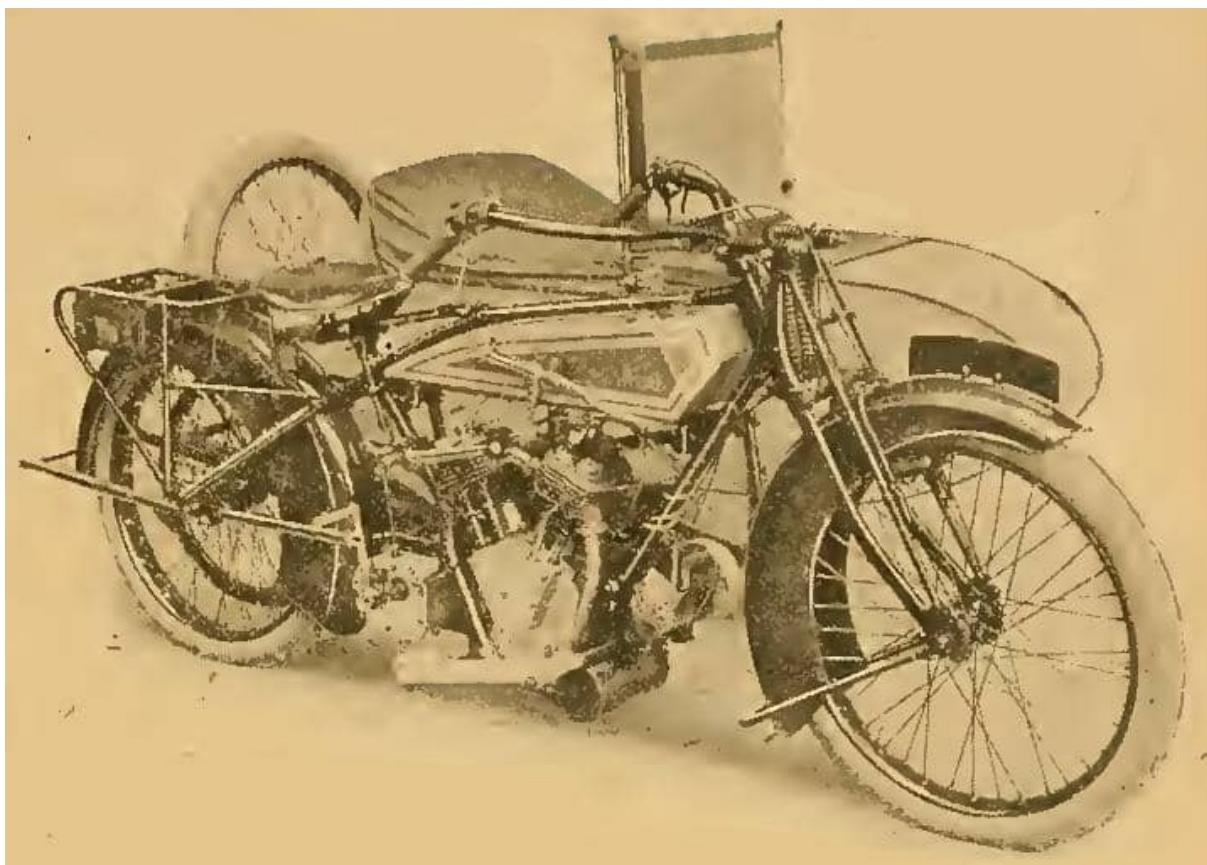
The Rex Model 66 shared its sidecar and much of its running gear with its one-lunger stablemate



The new Rex was powered by a 940cc V-twin featuring QD valve-spring covers. Right: "Something new in mudguarding. The Rex detachable winter guards for the front wheel."

"THOSE WHO HAVE FOLLOWED THE PATENT Files during the past two or three years will recall that quite a number of inventions relating to motor cycles have been protected by the Coventry Acme Motor Co, Ltd. These patents may have led many to expect the ultimate introduction of an Acme motor cycle, embodying unconventional and novel features. That such a machine has not fructified may be due to manufacturing difficulties preventing experiments. Be this as it may, the Acme machine now introduced follows more or less conventional lines, and appears to conform to most of the ideals of the big twin sidecar owner...The engine fitted is the 8hp JAP, adapted to the special requirements of the Acme Co. Here lies the chief novelty, for the magneto is driven from the main drive side of the engine, and not from the timing gear, as is usual with JAP engines...At every point the framework is of a most substantial character, and accessibility has not been overlooked...Both the large tank and the sidecar body are finished in

light grey, trimmed with a dark shade of the same colour, and at the rear of the sidecar there is a large locker, in the form of a 'boot', to which is fixed the carrier for the spare wheel."



"A powerful sidecar outfit possessing several commendable features, the 8hp JAP-engined Acme."

The Rex and Acme debutantes are clearly all but identical. This is no coincidence; the following year the two firms would merge to form Rex-Acme.

With a Lady Pilot over Lakeland Heights

GEORGE D ABRAHAM, ("AUTHOR OF *Motor Ways in Lakeland*") reported: "When Mary Riley, the noted Enfield enthusiast, smilingly suggested a half-day on the hills, the absence of spring frame on her handsome new Enfield mount was no excuse for refusing the invitation. Moreover, pleasant memories of former excursions, notably the first lady's drive over Wrynose and Hardknott Passes, added force to the suggestion. The idea was to explore some new hills, and, with this purpose in view, we set out from Keswick on a perfect afternoon with sunny Skiddaw all draped in full splendour of heather and golden bracken. Whinlatter Pass is familiar to North Country motorists and other touring parties, but the old packhorse road which ascends directly from near Thorntwaite is practically unknown, and this was the object of our search. There was just time on the levels to appreciate the pleasant running of the new model 8hp machine, which, despite the heavy load of three human beings and a camera, was to carry us up hill and down dale on the standard two-speed gear of 1 in 5 and 1 in 8.7. Too soon there came a quick turn to the left from the main road, and we were bumping up the narrow old-world lane past a

pretty Cumbrian farmhouse, where chickens with suicidal tendencies curbed the upward dash. The actual hill came with startling suddenness round the grey corner of a weathered barn, and there was just time to change to the lower gear before the first 'hairpin' was encountered. A 'mere man' had driven thus far, so it was no surprise to find the machine making a thrilling swerve on the grassy bend and finally floundering painfully to a halt on the steepest section. Then the lady driver showed us 'how to do it', and, after a new start from the bottom of the hill with two aboard, it was a pleasure to watch from terra firma the non-stop ascent. Ladies know all about 'hairpins' and the treacherous sample now engaging attention was negotiated most skilfully. Up and up the sturdy machine came, bumping and swerving as the driver keenly felt for firm grip on the steep, rugged gradient. At one point an unusual obstacle, in the shape of a drooping branch from an oak tree, had to be dodged cleverly below the toughest struggle, but this was passed, and ere long the writer was left to walk upwards with only the song of a pretty mountain stream stirring the soft silences of the gorge. Soon the others were rejoined, and with the three aboard the upper part was tackled speedily. The writer was unable to hear of any motor previously making the climb, and doubtless this was the first ascent of a sidecar outfit. The hill will be a useful discovery for some of the forthcoming trials."



"The 8hp Enfield on the rough gradient of Wythop Fell."



Meanwhile out in the colonies this Harley rider was also tackling acclivities, in this case a hillclimb in Oregon. It seems that even the chain round his rear tyre failed to find enough grip.

	148 Entered.	126 Started.	95 Finished.
Soles	31 Started	27 Finished.
Sidecars	62 ,,	44 ,,
Runabouts and Cars	33 ,,	24	"

ADVERSE CONDITIONS FOR THE CLASSIC CHRISTMAS RUN.

"ALTHOUGH the weather conditions on the morning of the fifth winter club run from London to Exeter and back, organised by the Motor Cycling Club, inspired great hopes of a pleasant run amongst the 148 riders competing in the trial, the gods favoured none. A slow sweeping drizzle set in at about 2.30pm to remain throughout the night of the 26-27th December, and create what was probably one of the most severe tests of both machine and rider yet experienced by the club... Regardless of the miserable conditions under which the plucky riders carried out the final preparations in readiness for their self-imposed task, the noise of the many machines was drowned in peal after peal of hoarse laughter from the throats of the dripping riders as each

newcomer who joined the happy throng revealed an even more grotesque, yet amusing, figure by his method of defying the wind and storm. Amusing variations in riding kit were also to be witnessed at the Bridge Hotel. One giant who, equipped in complete flying kit, entered with his passenger to partake of a final meal, commenced to perform numerous Houdini stunts in the endeavour to remove his six seamless coverings, and, after tying himself in a complete knot, had to be assisted by his passenger, who, to the intense surprise of the spectators of this curious cult, removed an oilskin helmet, from which coils of hair fell around two feminine shoulders. The number of lady passengers, however, who braved the ordeal emphasised the wonderful enthusiasm displayed by the fair sex...Quite a large crowd had assembled along the line of machines now drawn up in readiness for the start from the Bridge Hotel to give the plucky riders a final cheer as they sped on their 154 mile journey through the blinding storm to Exeter...Of the 126 starters, 95 tired and mud-bespattered heroes returned, some less mudguards and other equipment, petrol tanks bleached by the foaming acetylene of the previous night's struggle; others so exhausted that many willing hands pushed the mud-clogged machine away..." Of the 31 solos that started the Exeter 26 finished the course. Nine riders won gold medals, eight won silver; six were disqualified. Of 62 combos 46 finished; 27 won gold, 15 won silver; four were disqualified.



"At Blandford the scene was animated. Here is seen a group of competitors ready to take the long road again."

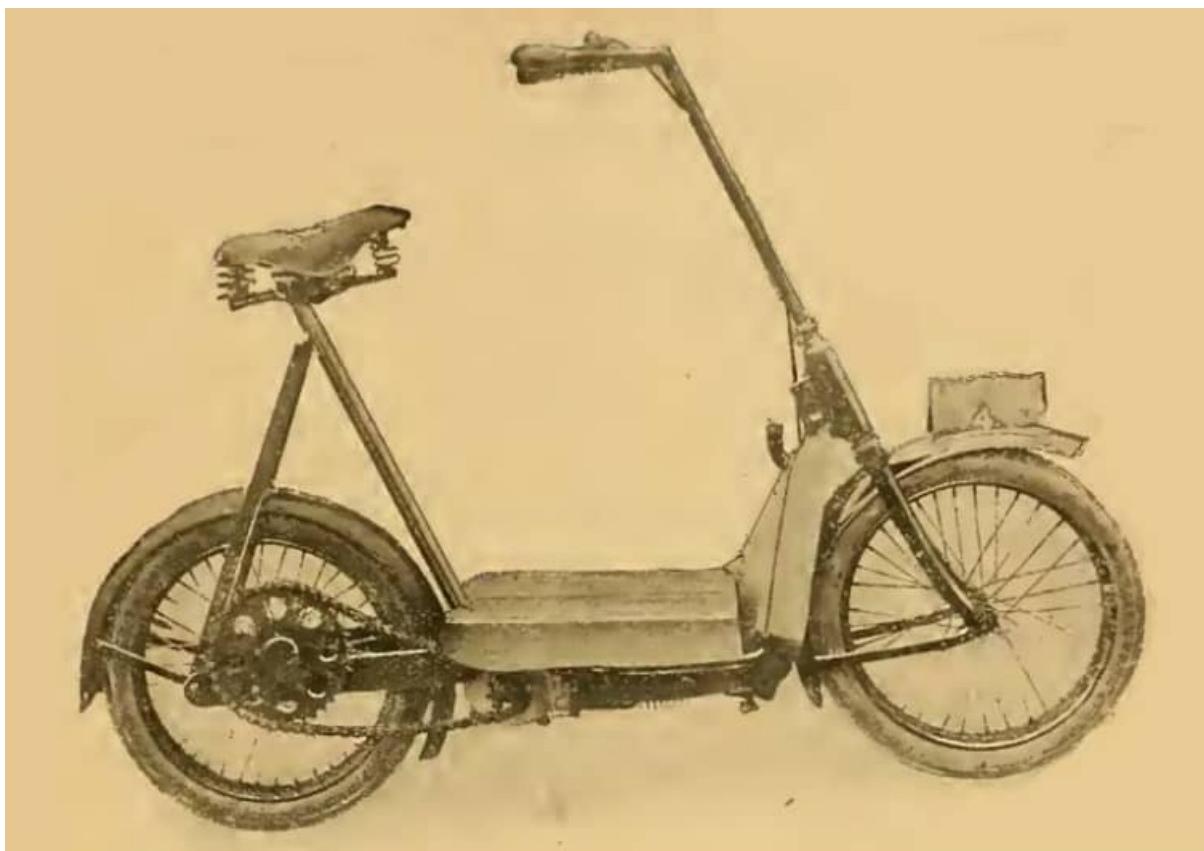


"Two powerful outfits—a Matchless and an Indian—near Salisbury. A James outfit near Salisbury; leg guards were fully appreciated on what proved a wet and muddy journey. EH Newnham (8hp New Imperial), wearing a warm woolly helmet, going well on the outskirts of Salisbury. Fell-Smith and his Harley-Davidson outfit near Pentridge."



"A scene at the Salisbury check. A moment when Sunbeams—machines, of course!—were much in evidence."

"ALTHOUGH DESIGNED TO MEET ANTICIPATED demand for motor scooters the Marseel scooter is to all intents and purposes a miniature motor cycle, as the capacity of the engine is 232cc and a saddle is provided. The makers have aimed to produce a light runabout machine, comparatively cheap to buy and run, and extremely simple in operation. Bearing in mind that the potential buyers of such machines are not mechanical, the designers have endeavoured to make the mechanical elements as inconspicuous as possible. Thus when seen from the eye level of an adult the machine has the appearance of being a seat type scooter minus an engine. This is due to the fact that the power unit is located below the platform, and the tank takes the form of a shallow box acting as a front shield."

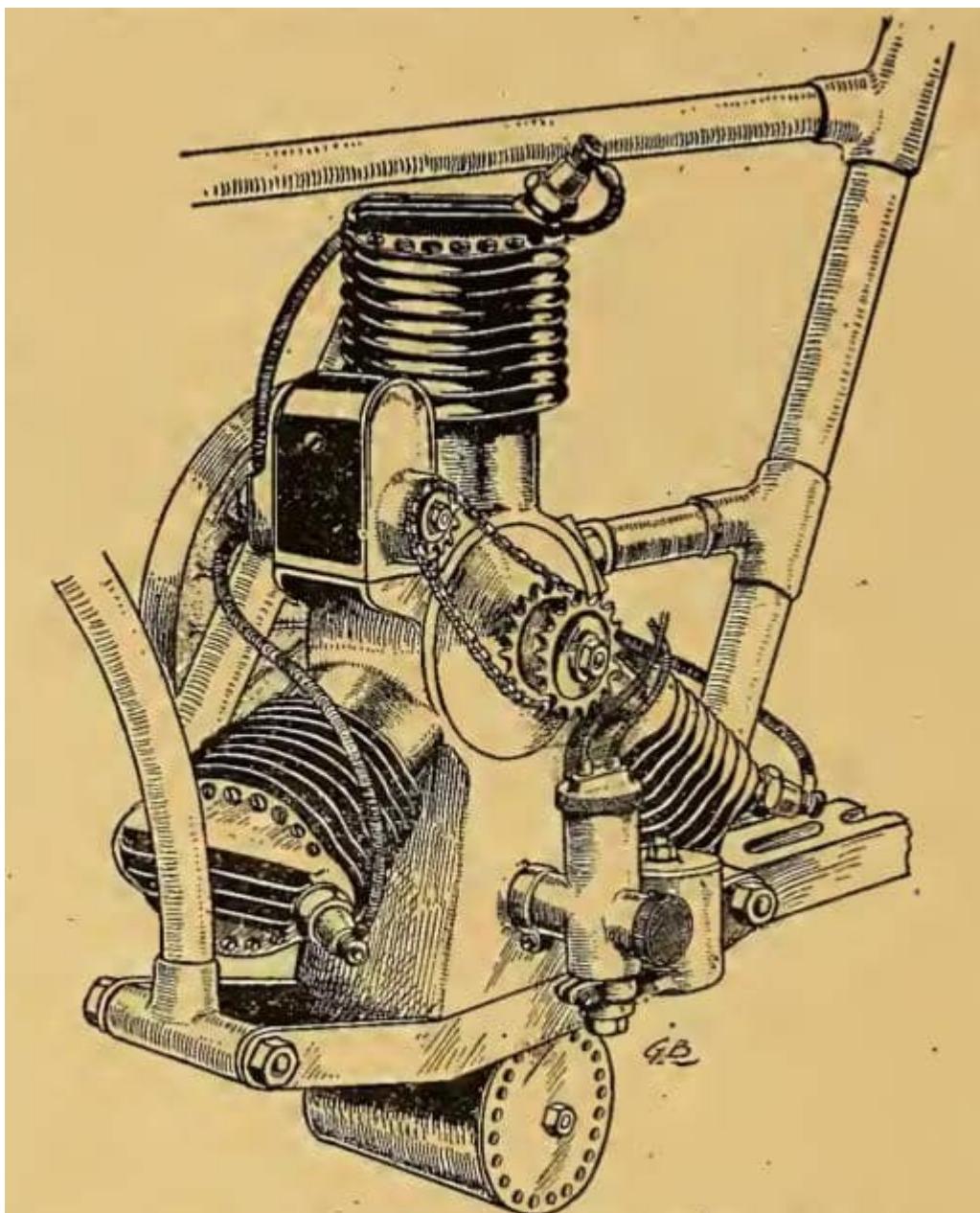


"The steel frame of Marseel's experimental model. In its improved form the right angle bends will be reduced."

THERE WAS MUCH TALK of incorporating 'aero practice' into motor cycle engines, but few designers took it as seriously as aircraft engine designer Charles Redrup. He produced a 3hp radial triple featuring detachable aluminium cylinder heads, slipper pistons, fan cooling, valves enclosed in the cylinder casting and a carb attached to the base of the crankcase. Monty Beaumont produced a motor cycle powered by the Redrup engine. According to the Blue 'Un: "During our inspection the engine was several times started by swinging the fan-flywheel, and the maximum revolutions were quite extra-ordinarily high. Vibration was noticeably absent...The whole machine will undoubtedly attract great attention on account of its decided renunciation of standard motor cycle practice. In the near future we hope to subject one of these machines to a severe road test." Beaumont did in due course start series production, but the power, alas, came from conventional 269cc Wall two-strokes and 348cc Blackburne sidevalves. However the Redrup was in production long enough for a roadtest: "The machine which we tested was not specially prepared for us, and it had just returned from a 500 mile trip into Wales, after which it was placed in our hands without any adjustments being made. At the outset we were favourably impressed by the manner in which the engine responded to a single depression of the kick starter. Although the machine had been standing all night in a very exposed place, and despite the fact that the morning was wet and cold, the engine fired at once, and after a few minutes' running, it became absolutely controllable—ticking over as slowly as desired or responding to full throttle without hesitation; it was noticed, however, that until a few miles had been covered the full power was not developed, and it seemed necessary that the engine should reach a certain temperature before pulling its best. Before starting on the journey from Leeds to Coventry, a hill of 1 in 7, a hundred yards in length, was climbed on low gear of 11 to 1 with a passenger on the carrier, the total weight being 21 stone. This is an excellent

performance for a machine of only 309cc capacity. Features particularly noticed while handling the machine were its continuous torque and absence of vibration. Without desiring to appear unguardedly eulogistic, we may truthfully say that the writer has never ridden any motor cycle which so nearly gave the impression of continuous free-wheeling on a pedal cycle. The engine was remarkably silent, as, owing to the valves and valve gear being completely enclosed in the cylinders, no noise from these parts could be heard; the exhaust gave a regular and subdued note...it was found that on the level 40 to 45mph could easily be reached. The petrol consumption worked out at 100mpg, but there is reason to believe that this could have been improved upon, as the mixture appeared to be rather rich; no doubt a smaller jet would have improved matters. Altogether we were very much impressed by the performance of the machine. The Motor Cycle has advocated the adoption of the radial principle many times in the past...our belief in the possibilities of the type has been greatly enhanced by the satisfactory running of this particular engine."

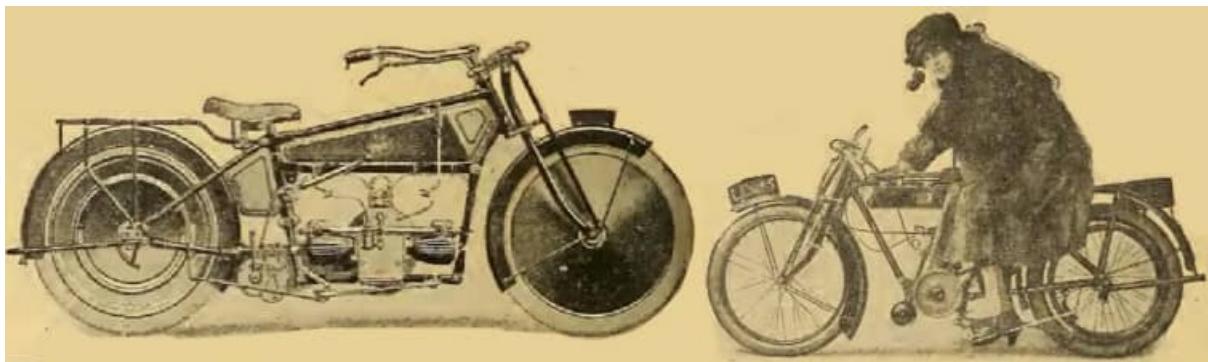




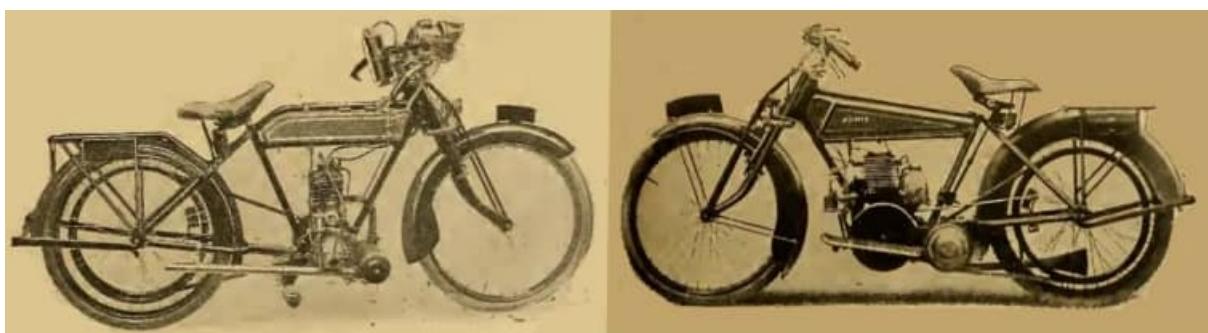
Beaumont's

radial did go into series production, but not for long.

REDRUP'S RADIAL ENGINE powered three marques (the third being the British-Radial, designed by JE Manes using a Chater-Lea frame). The 688cc 5-7hp Coventry Victor flat-twin proprietary engine was adopted by no less than seven manufacturers, who were also supplied with an engine cradle designed to be bolted into their rolling chassis. At the other end of the weight range was the 100lb 2¾ 269cc two-stroke Moonbeam, marketed by the MRP Trading Co of Pall Mall, London SW1. It was designed to be 'paddle started'; there were plans for a two-speed model.

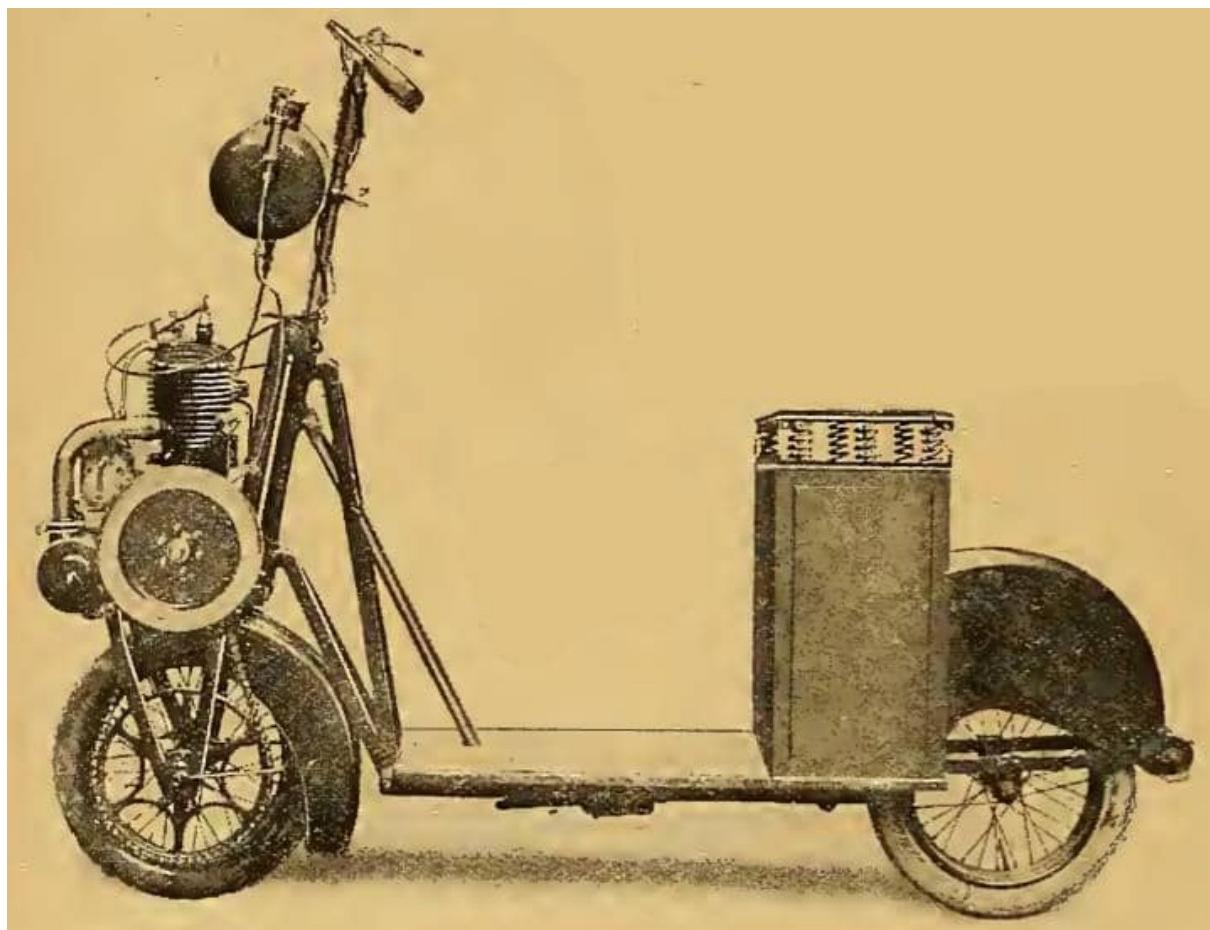


The duplex-framed Regent was one of seven new marques to make use of the Coventry Victor flat-twin engine. Right: "The 1001b Moonbeam with a fair rider who has not quite solved the 'what to wear' problem."



More new marques for the new year. Left: The Romper was powered by a 2½hp Union two-stroke engine; equipment included an Amac carburetter and Runbaken magneto. It came as a swingle-speeder but was designed to take a two-speed box. Right: The recently introduced 350cc two-stroke Baker engine powered the Arms.

LIKE THE ROMPER, THE MACKLUM SCOOTER was powered by a 2½hp Union engine and designed by F MacCallum of Guildhall Buildings, Birmingham. The Blue 'Un noted: "Following the reintroduction of the motor scooter during the past twelve months we are more convinced now perhaps than before that sooner or later the lightweight open frame machine will come... It will open up a vast field of potential buyers of handy little mounts, with which the use of special clothing will not be necessary." The relatively large engine was said "to provide a very large preserve of power to enable the machine to climb any ordinary hill on a single gear". Rear suspension and 16x2in wheels were designed to suit the Macklum for the colonial market: "A demonstration of the machine on the road gave ample evidence of the efficiency of the frame design, which is patented in most countries, and we await with interest further developments in the form of a machine which will have the same extended scope as a motor cycle."



The Macklum Scooter was designed to tackle rough Colonial roads.



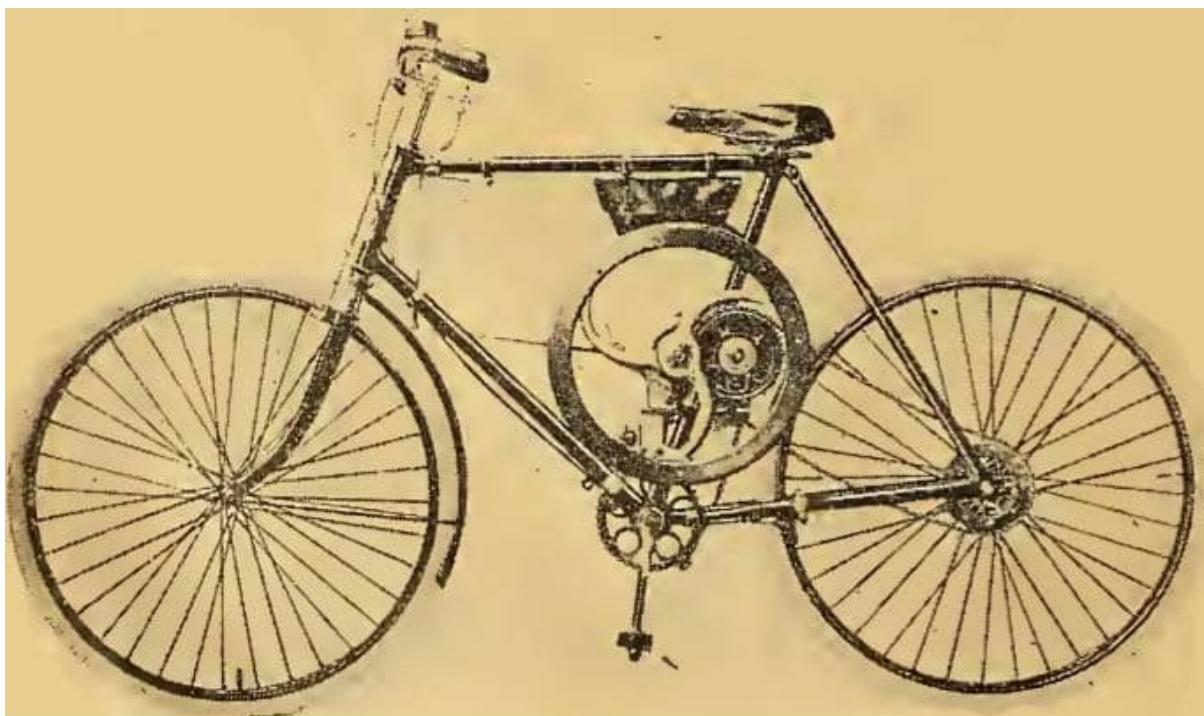
The Kelly, made for only a few months in Brighton, might be described as one of the new-fangled scooters or as a lady's frame lightweight motor cycle.

"PETROL CONSUMPTION: THERE APPEARS to be an impression among present-day motor cyclists that their petrol consumption is greater than it should be. Frequently we have heard the remark that post-war spirit does not give the same mileage as that used in 1914. For this reason the results given in the judge's report of the Liverpool MC Trial held last autumn are of interest. Six riders of 3½hp Sunbeam machines showed an average consumption of 101mpg. The best performance in any class was that of Captain AW Brittain, 123.7mpg. The consumption of lightweights and sidecar machines was disappointing. Twelve riders failed at the easy limits imposed in this test. A modern 8hp sidecar machine should be capable of travelling 45 miles on a gallon of petrol, and efforts should be made by manufacturers to attain this result. Best performances in the various classes: 350cc, A Moses (2¾hp AJS), 108.2mpg; 500cc, Capt AW Brittain (3½hp Sunbeam), 123.7mpg; 750cc, W Cottle (4¼hp BSA), 118mpg; 1,000cc, RR Coes (7-9hp Indian), 87.6mpg; 750cc sidecar, V Horsman (4hp Norton sc), 83.6mpg; 1,000cc sidecar, WR Haggas (8hp New Imperial sc), 53.4mpg.



"Derelict American army motor cycles: It is stated that the American Army shipped 40,000 motor cycles into France. This photograph shows one of the big dumps on the other side of the Channel where wrecked machines are being collected. The work in connection with the salvaging of these motor cycles is performed for the most part by German prisoners."

"WHY FIT AN ENGINE? BRITISH LIGHTWEIGHT manufacturers must look to their laurels if they are to keep pace with Continental developments! A French invention intended to be fitted to any form pedal cycle consists of a flywheel interposed in the pedal chain drive, its functions being controlled by a clutch. The inventor claims that his device eliminates fatigue, as an occasional stroke of the pedals is all that is necessary to keep the machine in motion, and that the gyroscopic action of the flywheel stabilises the machine. Also, of course, it is pointed out that energy is stored in the flywheel for use when needed. For the benefit of unmechanical readers, it may be stated that from the very best design of flywheel it is impossible to obtain quite as much energy as is originally put in, so that unless the roads are specially designed with a long downhill section before each slight rise, one will still have to pedal one's cycle, with the additional weight of the' flywheel, clutch, and gear."



"A Frenchman's idea of utilising the momentum of a big flywheel to aid the propulsion of a pedal cycle." [Is it me or does the word 'Frenchman' come with a curled lip?]

"AN OIL TURBINE TO BE ADOPTED as an auxiliary power unit for a bicycle: The inventor of the bump bicycle, as it is called, has adopted a different system from our French friend...The Bump is in no sense a motor bicycle as we understand it, but is intended to be a motor-assisted bicycle...There is a cylinder attached to the saddle tube of the bicycle, provided with an' ordinary tyre valve at the top. Air is pumped into this by means of an ordinary bicycle pump to a pressure of about 15lb to the square inch. The lower portion of the cylinder contains oil, on which a float rests, thus separating the oil from the air chambers. The pump is attached to the back of the saddle, and is operated by the saddle moving up and down, owing to ordinary undulations in the road. It serves to pump the oil from the small reservoir over the rear wheel—the exhaust chamber, as it were—to the large reservoir, which in turn delvers it to a small Pelton wheel. This is situated on the top of the oil tank. The power is conveyed to the rear wheel by means of a chain, and the flow of oil is controlled by a lever on the handle-bars. Similar pumps can be attached to the front wheels when they are sprung...It is handled by Central Traction Ltd, 125, Wool Exchange, London, EC."



"The Bump bicycle, to which is fitted an auxiliary motor in the form of a wheel." Right: "A peep into the future: The first hill-climbing competition on the new 'Bump' bicycle depicted by a reader, Mr HW Moss."

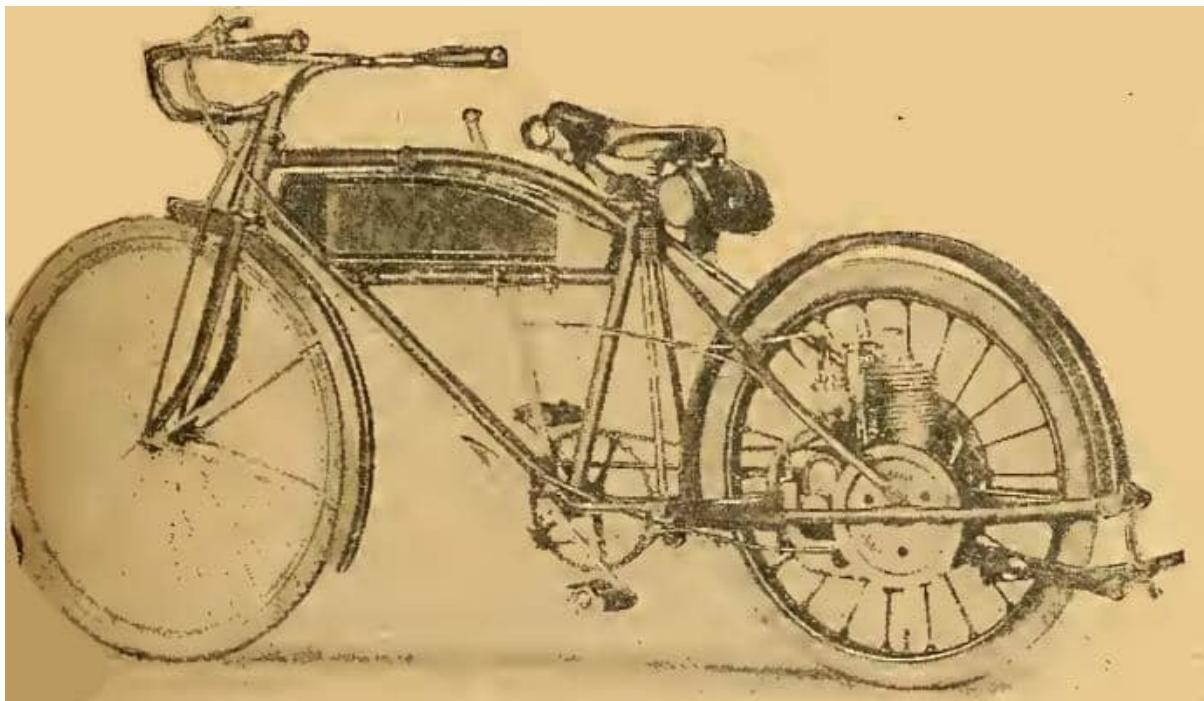
"SIR,—IN VIEW OF THE LARGE number of motor cyclists who will be visiting the IOM for the TT Races, there is a very vexatious and unnecessary regulation which all motor cyclists and car owners have to comply with and, I am sure, would like to see abolished, viz, all motor cyclists and car owners must register themselves and motor cycle within twenty-four hours of landing, and if they reside on the island over one month they have to go to the expense and trouble of taking a Manx registration out. As this unnecessary regulation is not in force in any other part of the United Kingdom, I should like to see this letter published in The Motor Cycle, and brought to the notice of the RAC, AA, and ACU with a view to the above vexatious and unnecessary regulation being abolished.

RM, Liverpool"

MOTOR CYCLE EXPORTERS WERE RISING, but they had not regained pre-war levels. In 1913 16,850 motor cycles were exported; 1914, 20,877; 1915, 10,979; 1916, 12,851; 1917, 14,159; 1918, 5,652; 1919, 8,330. One pundit warned: "There will be an ever-increasing demand at homes for machines: a demand that is likely to lull to sleep the faculty for a full realisation of the gigantic possibilities of 'foreign' demand, for not only is there the white population of such places as Lidia and China to consider, but also the coloured races. Let it be remembered that the enlightened population of India and China is a large one, and, judging from correspondents' letters, it is interested in the cheap and simple type of motor cycle. The world's demands for motor cycles is huge, and the makers who have imagination, mettle, and push, will reap a big reward: there is no question whatever on that point."

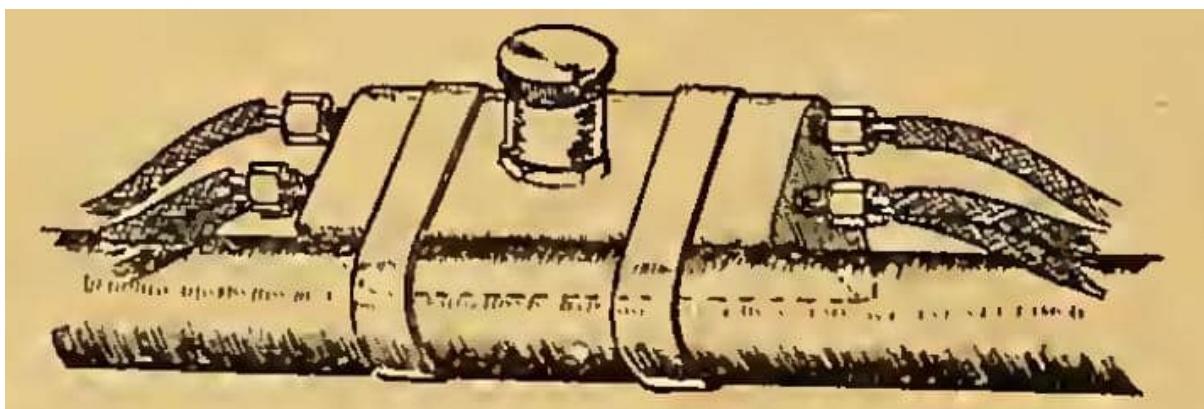


Coventry rider A Barnes converted his 3½hp Humber to swinging arm rear suspension to make life more comfortable for his pillion riding wife.



The US-built Badger was powered by a 169cc IOE engine in the rear wheel. It weighed in at 126lb and was described by *The Motor Cycle* as "a combination of the motor-assisted pedal cycle and the pedal-assisted motor cycle...The spokes of this wheel are tubular, and altogether the machine gives one the impression that it is a composite, adapted from the main parts of the several pedal cycles which in America are built in imitation of the motor cycle, and a motor wheel of the Merkel type."

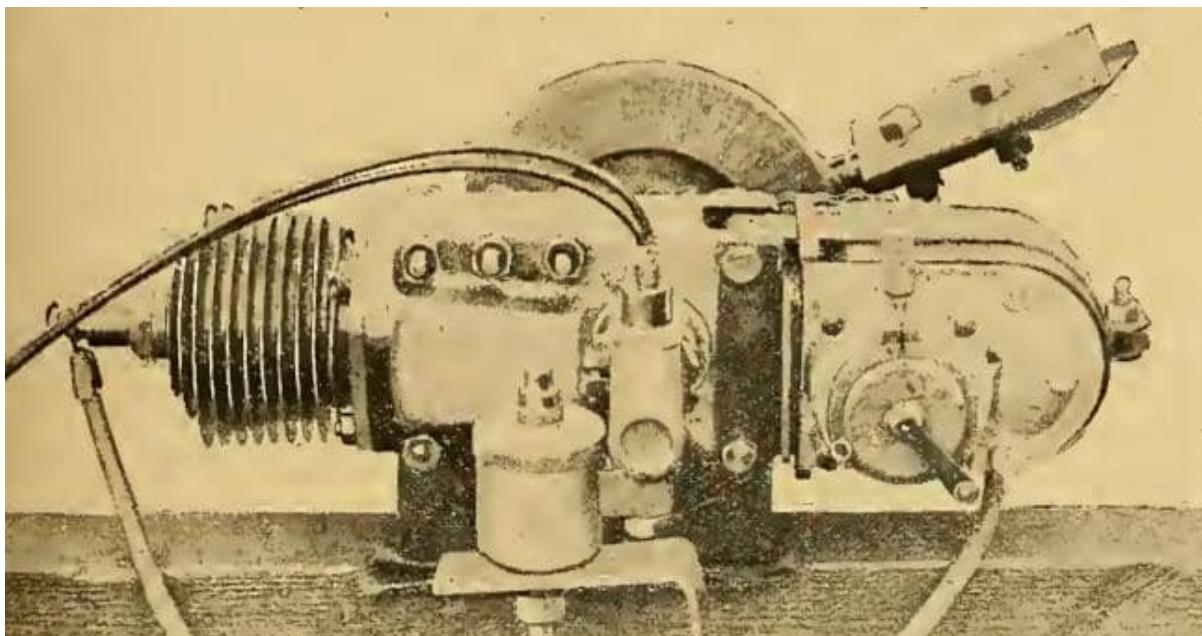
"IF EVER ARGUMENT WAS WANTED to emphasise the desirability of encouraging in every possible way the production of home-produced fuel, either power alcohol or benzole, the constant threats of increased petrol prices, once more before the motoring public, provide it. For some time carefully prepared propaganda has been appearing in the daily press preparing consumers of imported fuels for impending rises in prices for which the increased cost of freightage is largely blamed. So long as imported petrol is the fuel used by the majority, the chances of an unexpected rise in price will always threaten motor cyclists and motorists of this country. This journal has oftentimes pointed out the absurdity of an important key industry, such as the automobile industry of this country represents, being nominally 'controlled' by the petrol ring. The British Government has constantly been urged to take action to develop a home-produced fuel and to control our own oilfields abroad."



'Experimental engineer' Leopold Ward made "an ingenious device for the purpose of lubricating

Bowden cables. The triangular box, through which the cable passes, is filled with grease, and extra grease is forced in from time to time by means of the grease cup shown in the illustration. The reciprocating movement of the wires and the pressure exerted through the grease cup cause the lubricant to pass throughout the length of the controls."

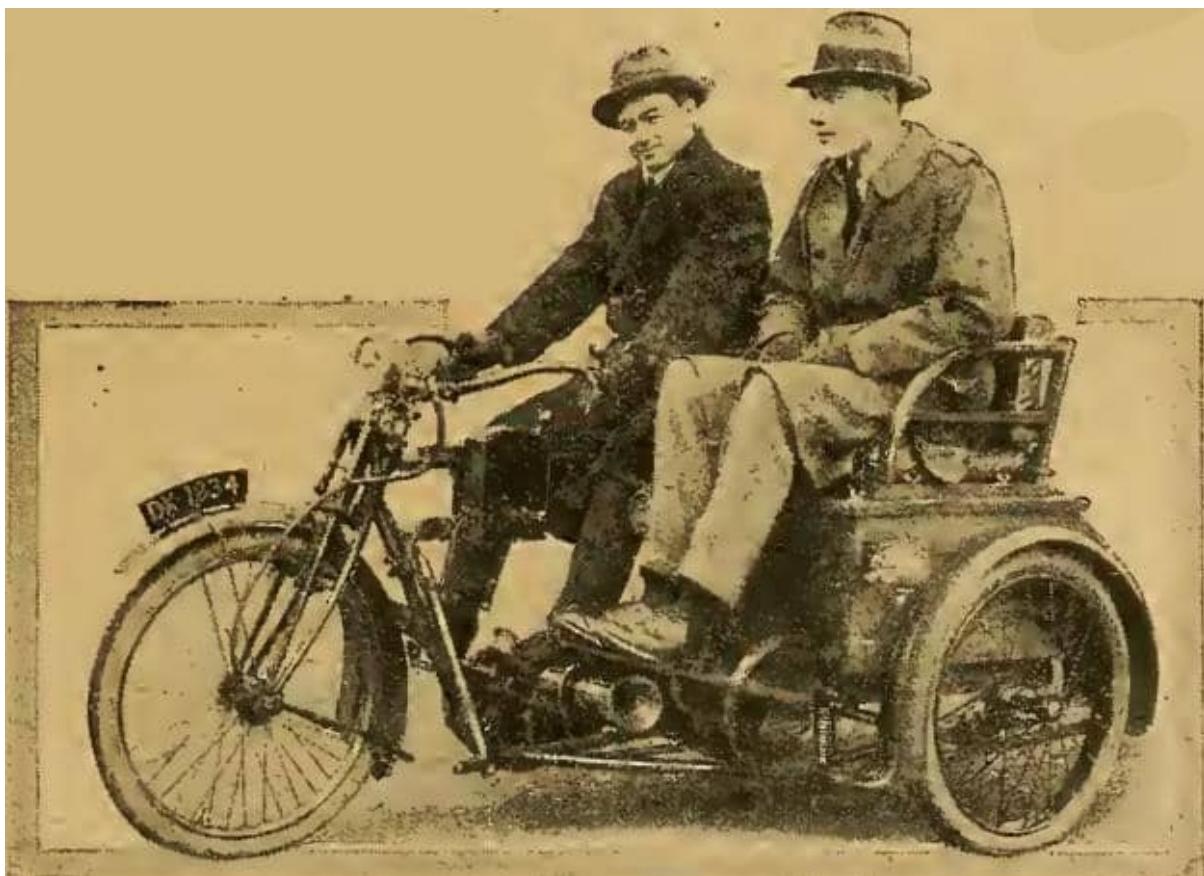
IXION ON HELMETS: "...if by helmets he means those pseudo-airman, hun-crash, leather skullcap brain-warmers, I have no use for them. If the sun is shining, you get dazzle-blindness. If it hails, your eyes get mashed to a pulp. If it rains, there is a river down your back. Dismounted, you feel—and look—an idiot, unless you carry a Saxe-blue velours flapper-dazzler crushed up in your side pocket, and at the present price of velours I cannot afford to do that. When the war was on, things were different. You could walk down Bond Street in one of those helmets, and some dear old patriot probably, mistook you for Warneford or McCudden, and invited you to refresh at his expense. Nowadays one just feels silly in them. Next, please."



Mepsted and Hayward of North London produced the 116cc two-stroke Mepward engine in two versions, for scooters or for powering pedal cycles.

"AT THE SIGN OF THE TIN HAT: An association, called the Ex-Service Professional and Commercial Association, has recently been formed, with the idea of providing means of distinguishing the fact that members served in the war. A badge, called 'The Sign of the Tin Hat', will be issued to members, which can be displayed in office or garage, as the case may be. The head office is at 38, Piccadilly, London, W."

"EVERY MORNING *THE MOTOR CYCLE* letter-bag reveals the extent of its world wide circulation...This last week letters were received from Belgium, France, Austria, Australia, Canada, India, Japan, West Africa, Egypt, Peru, and the Straits Settlements."



The Orwell Works in Ipswich, which specialised in making electric lorries, produced an electrically powered sidecar outfit. It could only do 12mph but was said to climb any hill in the area and had a range of 30 miles per charge.

"A SIGN THAT WE HAVE FINISHED with the war, and that more or less peaceful conditions now prevail, is that representatives of the world's motor cycle organisations met last week in London. The conference of delegates of the Federation Internationale des Clubs Motocyclistes was notable for the undoubted good spirit which animated the whole proceedings...It was affirmed that in New Zealand there are more motor cyclists in proportion to population than any other part of the world...In France, Belgium, Holland, Switzerland, and America, demand and outputs continue to grow, placing the world's motor cycle industries in an important position in the commerce of the nations...The position of Germany and Austria as members of the FICM is now defined. Our late enemies are to be permitted to join when they are admitted to the League of Nations...In America the body governing competitions is a Trade organisation...It may be said that the motor cycle movement across the Atlantic has been built up more by trade propaganda than by riders themselves. The system has been highly successful, and since the 'trade' took over the duties for which in this country the ACU is responsible, there have been better organised competitions than at any time during the life of the Federation of American Motor Cyclists, which has now ceased to exist. The Motor Cycle and Allied Trades Association of America, therefore, is accepted, subject to endorsement by the Automobile Club of America, as a suitable body to represent United States motor cyclists at the FICM...Speaking at a dinner at which all the foreign delegates of the FICM were present, Mr WH Wells, of Indian fame, said that the motor cycle was the surest antidote against Bolshevism."



“Overseas conditions’ abound in many outlying districts in Great Britain. This is a road recently encountered in Yorkshire by a member of *The Motor Cycle* staff.”

“ARTIST’S LICENCE? MR JB DUNLOP, the inventor of the first practicable pneumatic tyre, is bringing an action against the Dunlop Rubber Co, Ltd, to restrain them from publishing in their advertisements the figure now so well known, and which represents Mr Dunlop in ‘absurd costumes’. For some time, Mr Dunlop complains, the Dunlop Co have used, without permission, pictures obviously intended to represent him, but the features adapted from a portrait were placed on the body of a very tall man, dressed in an exaggeratedly foppish manner, wearing a tall white hat, white waistcoat, and carrying a cane and an eye-glass, none of which it was his custom to wear. Below we give a portrait of the veteran inventor, who is now seventy-nine years of age, together with the figure used in the Dunlop Co’s advertisements.”



"The familiar Dunlop

advertisement and the photograph of Mr JB Dunlop."

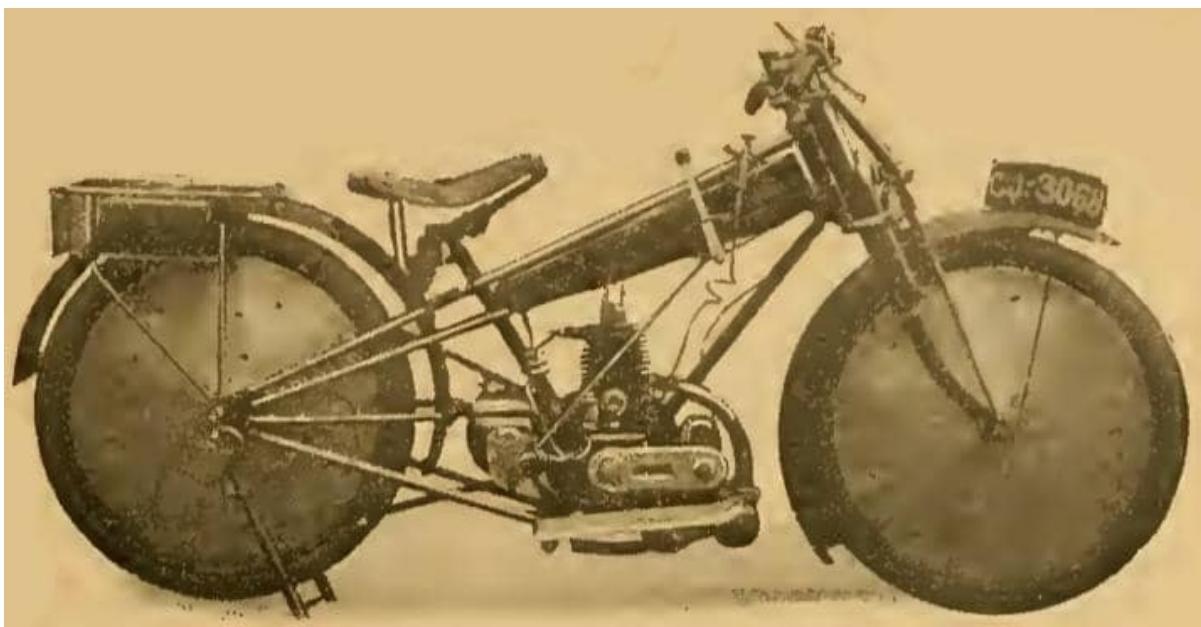
"PETROL SHORTAGE IN ITALY: It is difficult to obtain petrol in Italy. All motorists are on strict and low rations. Tyres, too, it is stated, are difficult to obtain." The RAC advised members to delay taking vehicles to France where petrol was also in short supply, particularly in the South.

A 36-HOUR WINTER TRIAL in the Netherlands attracted 63 entrants; 55 completed the 94-mile course. Triumph, Matchless, Scott, and Douglas were strongly represented; a Douglas rider won.

HARLEY-DAVIDSON WAS THE largest motorcycle manufacturer in the world, with 28,189 machines produced and dealers in 67 countries.

"MORE MOTOR CYCLISTS THAN CAR OWNERS: There were only 116,600 motor cycles registered in Great Britain and Ireland up to March, 1919—a figure less than the weekly circulation of *The Motor Cycle*. In 1915-16 158,000 motor cycles were licensed, and it is expected that when the figures for March 1920 are available, it will be found that the 1915-16 figure will be at least equalled. In 1915-16 there were 9,200 fewer cars registered than motor cycles, while the 1919 figure shows 3,600 motor cycles in excess of cars.

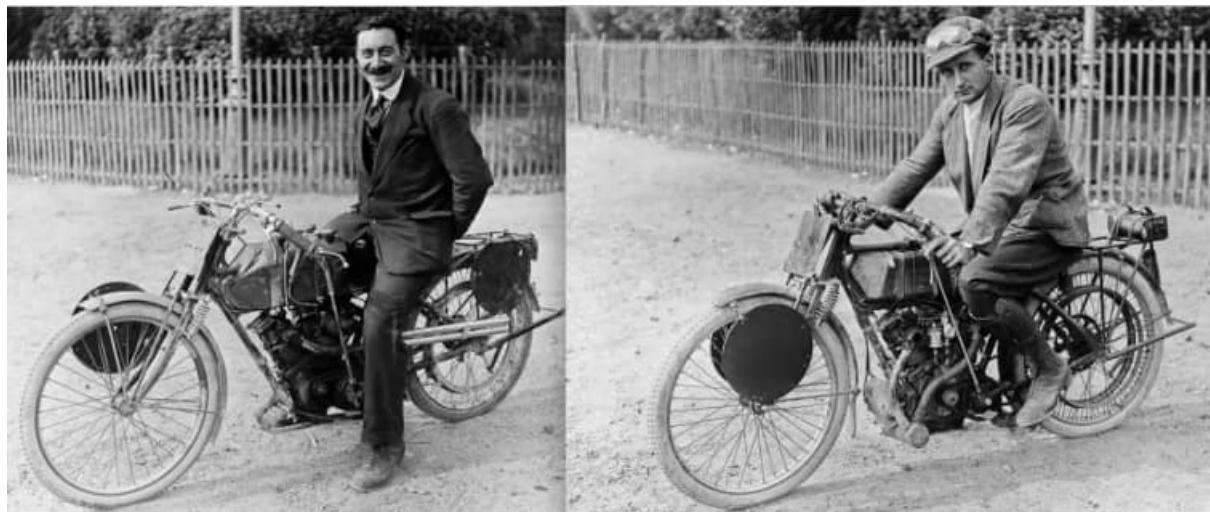
JUST BEFORE THE WAR Willoughby Cotton was inspired by judges' criticism of frame design in the open trials to design a triangulated frame. "The result is light, strong, and rigid construction, eliminating the chances of breakage through fatigue of metal to a minimum. Such construction should also prevent misalignment of wheels and provide extraordinary stability. The spec included a Villiers two-stroke engine, Albion two-speed box, chain/belt transmission and Saxon forks.



A debutante from Gloucester: "The Cotton motor cycle, which has an unusual type of frame."

IF WE WERE TOLD that we could sow a few petrol seeds in our gardens in the spring and reap a crop of petrol in the autumn, our first impression would be that our informant was either joking or mad. Yet, although the statement would not be true of petrol, we have only to substitute the word 'alcohol' to make it very near to the truth... One of the greatest evils in the history of motoring is the 'cornering' by the oil syndicates of practically all the large natural oil deposits in the world. This has led to the inflation of prices paid for petrol, and, as long as petrol continues to be the recognised motor fuel, so long will the motoring public suffer from this trouble. It is on account of the limitations imposed on the supply of petrol at a reasonable price that other fuels have of late years been sought after. Benzole, made from coal tar or coal gas, has, to a large extent, replaced petrol, and has the advantage that it is a home-produced product. Here, however, the same difficulty of a limited supply presents itself with all the attendant evils of monopolisation by a comparatively small body of men. On this point alcohol scores. It has been proved that the manufacture of alcohol from potatoes and other vegetables is a commercial success. No amalgamation of firms would seriously attempt to 'corner' potatoes, for the simple reason that a rival syndicate has only to plant one potato in order to produce, in a few years, as many more as it requires. Unfortunately, however, alcohol is liable to a heavy duty in this country, and the payment of this duty makes its price very high. Steps are being taken by various organisations to try to persuade the Government to see the folly of its ways, and it is hoped that, in the near future, alcohol will be obtainable at price much below that of petrol...Our Continental neighbours, notably France and Germany, and later, Russia, have successfully used alcohol as a fuel for many years past...the ordinary fitments for petrol engines are not well adapted for alcohol. It is found, however, that a mixture of two parts alcohol and one part benzole can be used in most of the existing makes of carburetter as readily as petrol—in fact,

with marked advantage, as, for some reason not yet fully investigated, the presence of a little water, which always exists in alcohol, gives smoother running. (Incidentally, the fact that water mixes freely with alcohol renders it possible quickly to put out an alcohol fire with water—a thing which cannot be done with petrol or benzole.)



Messrs Milland and Robert (both on Motosacoche) at the inaugural Circuit de la Sarthe, hosted by the UMF (Union Motocycliste de France) on a triangular course from the Pontlieue suburbs of Le Mans, along public roads to Mulsanne and back again. The 10-mile flat-out course proved to be a machinery-breaker—there were 31 starters and four finishers.

LETTER FROM AMERICA: "THE Crotona Motor Cycle Club, of New York City, started the 1920 competition season off well with a 150 miles reliability run that left New York at midnight. The course was VIA Albany Post Road to Poughkeepsie and return on a 20mph schedule. About 58 miles of the run was through ice-rutted roads, with snow averaging seven inches in depth. Thirty-six riders faced the starter, and were sent off at one-minute intervals, twenty-seven sidecar outfits and nine solo machines comprising the field. The Indian sidecar won highest score with 1,000 points, which took a gold medal and the Hendee trophy. The Indian solo rider with 988 points won a gold medal in his division. The Indian Scout scored 949 points. A lady driver, with a passenger of the same sex, scored 915 points. The Crotona MC will award three gold, twenty-six silver, and nineteen bronze medals, passengers sharing equal awards with the drivers. The run brought out much winter equipment, handle-bar muffs, splash-boards, and rain clothes being in evidence. Most riders using electrically equipped machines added Kay Bee Spot-lights to their handle-bars, or for the sidecar passenger to operate. These Kay Bee lamps are fitted with 21cp nitrogen lamps and are swivelling, so that all parts of the highway may be illuminated. Three and four lamps were used by some contestants, which gave a good imitation of sunlight, and permitted of high speeds."

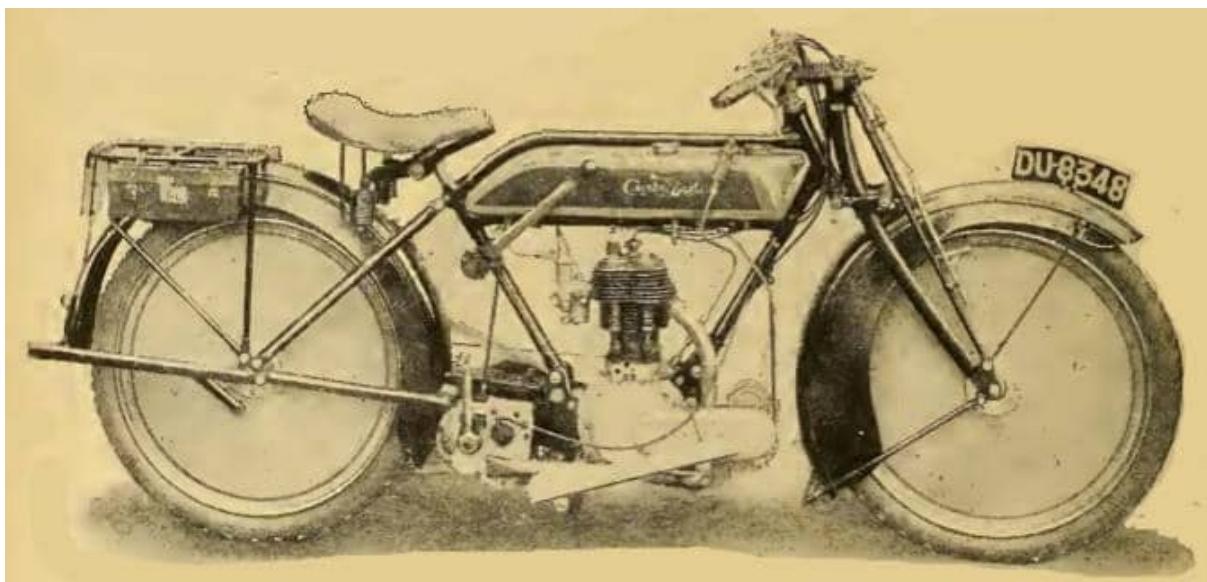


"Competitors in a recent

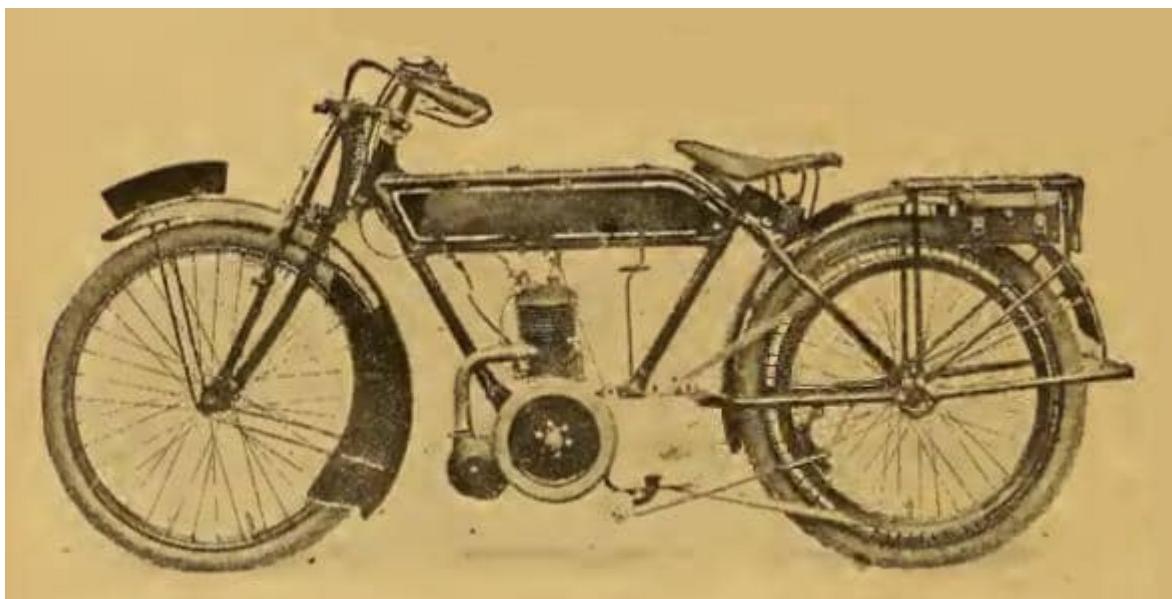
American reliability trial. Extension sidecar axles are optional equipment on Indians in the US, and a big convenience on rutted roads."

"IN A REPORT FROM the Bureau of Mines in the USA it is stated that probably all existing underground reserves of oil in that country will be exhausted by 1928."

"THE OLDEST MOTOR CYCLING CLUB in Belgium, the Moto Club Liegeois, has recently been authorised by his Majesty King Albert to take the title of Royal Moto Club Liegeois. Sixty-five members of the club joined the Army at the outbreak of war, and they distinguished themselves as despatch riders, in the air, and technical services, and in fighting corps."



"The 1920 Coventry Eagle is a pleasing though conventional design. A 499cc Abingdon King Dick engine and a Sturmey- Archer gear are fitted and a handsome cast aluminium case encloses the driving chain. The final drive is by belt. The equipment of the machine is first-class in every way, including Brampton forks, aluminium footboards, and well-designed mudguards, while Ace disc wheels are fitted when so ordered."



"Another addition to the ranks of the light two-stroke hails from the Coventry Motor Mart...It is fitted with the well-known Union two-stroke engine. Three models are listed single-gear, two-speed, and two-speed with clutch and kick-starter. A Burman two-speed gear is fitted with a sturdy little frame, with a well webbed head lug and Brampton Biflex forks."

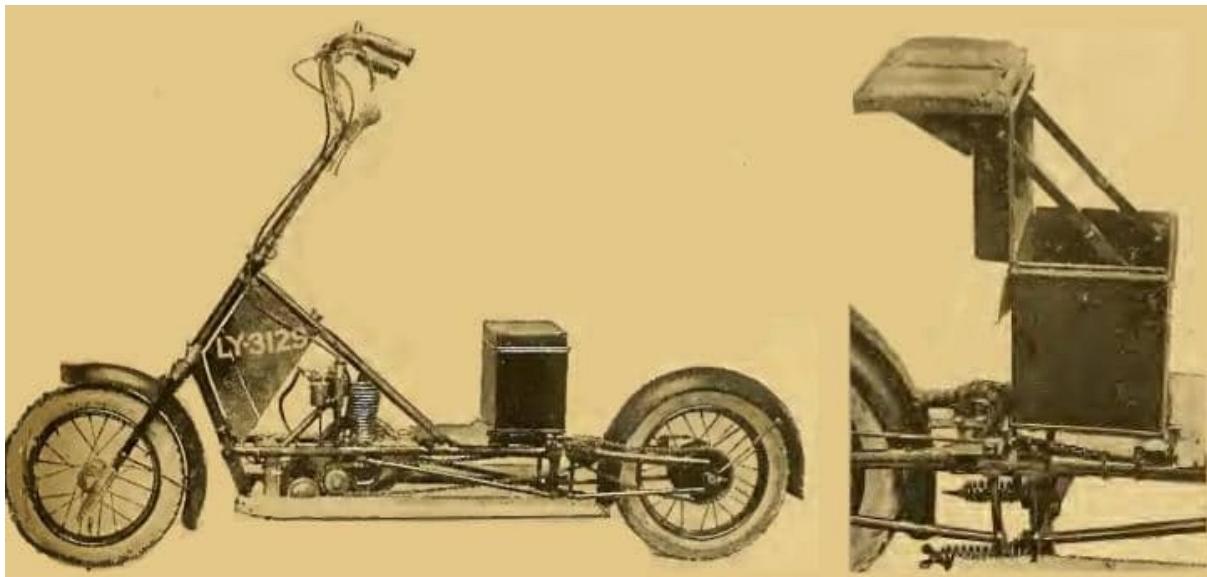
"PRINCE ALBERT AND PRINCE HENRY were seen last week with their Douglas motor cycles at Robinson's Garage, where they called in the ordinary way for some minor adjustments. Their Royal Highnesses are using their machines in a similar manner to other members of the University for the purposes of keeping engagements or reaching the gold links or river."



"The women police of London have for some time realised the value of the motor cycle in their rescue work. New machines have now been supplied, among them being an Enfield two-stroke, and the Sunbeam and Matchless outfits shown."

"A PARTICULARLY INGENIOUS SCOOTER has lately been constructed by Mr F Hudlass, engineer to the Royal Automobile Club, in his private workshop. From the constructional point of view it is a most excellent job, practically every part, even the hub, having been built by its designer. An Auto-wheel engine is fitted though Mr Hudlass considers that a more powerful unit would be desirable." The frame was sprung by leaf and coil springs adjustable to suit the rider's weight. "The design of the front forks is most interesting, and Mr Hudlass hopes that they may serve equally well on motor bicycles as on scooters. With them side play is quite impossible, while of

the four springs the two inner ones are in tension, while the two outer are in compression, and serve to take the rebound. The lower portions of the fork tubes slide into long outer tubes filled with oil...Not the least ingenious part of the vehicle is the luggage box. When the lid of this is raised a small cushioned seat is disclosed, which is first placed in position and then laterally extended; consequently the Hudlass scooter will suit equally well the rider who wishes to stand and the rider who prefers to sit."



"Transmission side of the Hudlass scooter. (Right) The Hudlass scooter, showing the springing and seat unfolded."



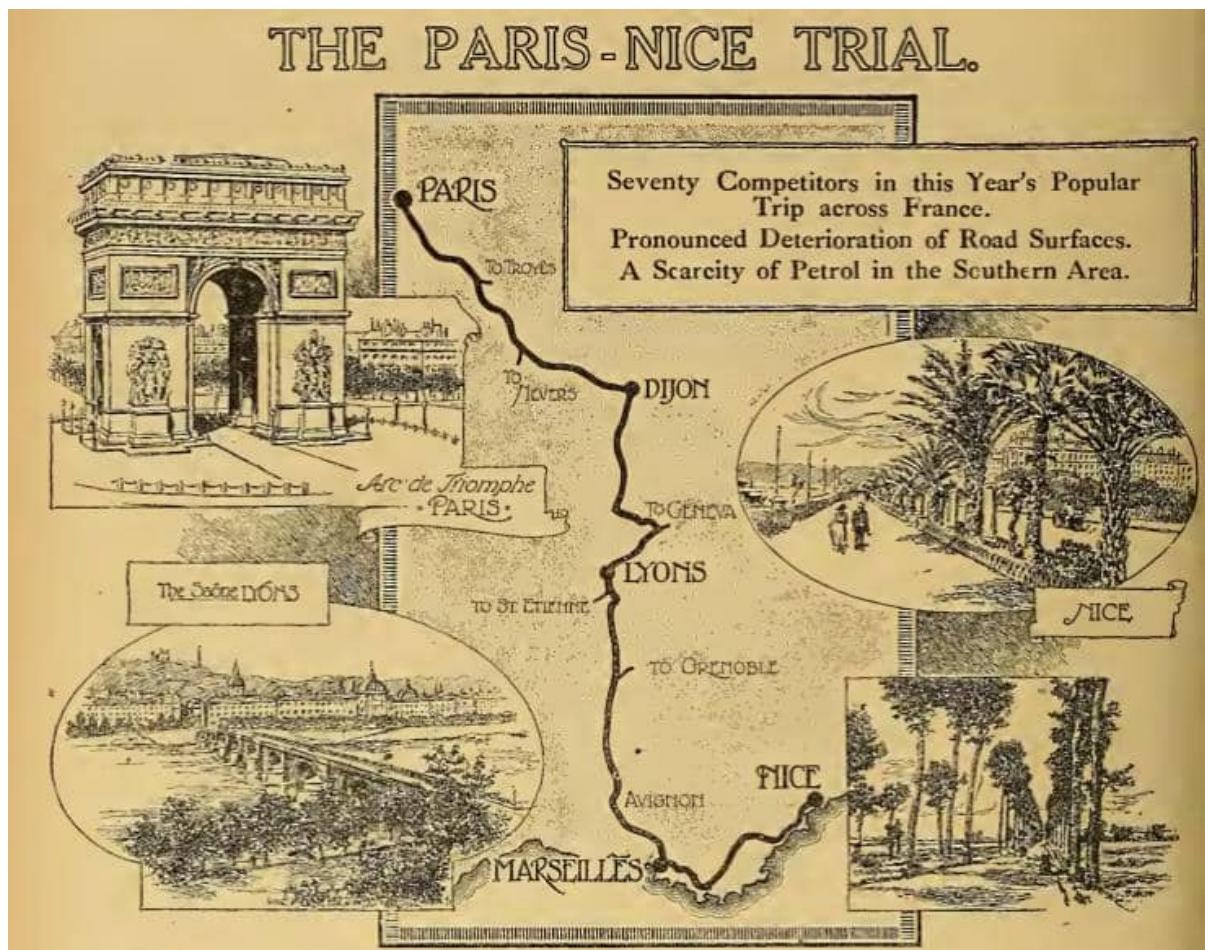
Mr Murphy Of Birmingham came up with a 452cc two-stroke single which The Motor Cycle found "would propel a greater load than a 500cc four-stroke." Right: "The new Connaught embodies an entirely new frame which has a sloping top tube...the capacity of the two-stroke engine is 293cc. It will be remembered by our older readers that the Connaught was one of the firms who pioneered the air-cooled two-stroke for motor cycles, and also that it enjoys a splendid reputation for its economical running." Equipment included Brampton forks and a three-speed Sturmey-Archer gear box.

"OWING TO THE RAILWAY STRIKE in Italy, the supply of petrol to all motorists, even the holders of ration cards, is completely suspended."

THE AA LAUNCHED A PETITION demanding action to control fuel prices, proclaiming: "The exorbitant price exacted from the British public by the petrol interests is directly increasing your cost of living, and bids fair to strangle road transport and the motor industry. To live, it is essential that you should be fed, clothed, and housed, all of which are bound up with the road

transport question. It is also necessary for you to travel by road by some form of motor traction or another. Do you realise that the oil magnates are practically deciding how much you shall pay for the privilege of living in your own country and travelling over its roads? This is the direct result of being dependent upon imported motor spirit, shipped here by combines, over whom our Government can exercise no control. Every year many millions of money pass from the pockets of the British public into those of the oil kings. All this can be prevented, and those millions can be kept in our own country. Our common interests in this vital matter can only be attained by bringing home forcibly to the Government that immediate action is necessary."

"SUGGESTIONS ARISE FROM TIME TO TIME that driving licences should not be issued without regard to the applicants' qualifications, and the most recent suggestion is that the eyesight of all prospective drivers should be tested under various conditions."



OF THE 69 STARTERS IN THE PARIS-NICE TRIAL no less than 60 were riding British bikes. *The Motor Cycle* described the Paris-Nice trial as "largely a competition for British motor owners of motor cycles and manufacturers of British machines." That was no exaggeration: 60 of the 69 entrants rode British bikes; 10 were on US mounted with six French bikes and three Italians. "It is a matter of sore disappointment to the organiser, Mr Gaston Sweerts, editor of *Motorcyclisme*, that French manufacturers have taken such a lukewarm interest in the event." This was understandable: "France has suffered more—much more—than any other country in the war. That fact is plainly evident from the moment one touches French soil. Road neglect, dilapidated cars and lorries due to inevitable overwork without periodic attention, and dwellings crumbling and rotting are evident on all sides." No wonder the roads were found to be "execrable": Messrs Petty and Horsman reacted by removing their sidecars to tackle the event

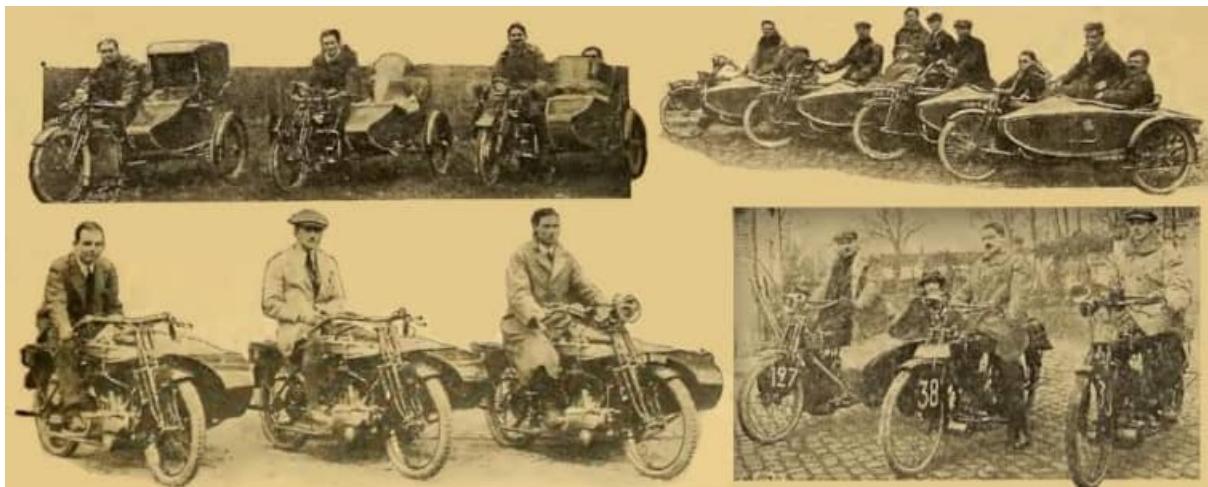
on solos. French customs insisted on searching riders and bikes for contraband and while the organisers were extremely hospitable, seeing the trial as “a continuation of the splendid alliance which existed between the two great nations”, there were lapses in the *entente cordiale*.

“Geoffrey Hill, who is riding the same Triumph on which he won the Scott Trial, was refused petrol at a garage simply because they did not cater for motor cyclists...Several of the competitors took part in the two previous Paris-Nice Trials. Of these, Douglas Hawkes, the driver of the AJS, was one, and Oblin (6hp Enfield sc) was another. The



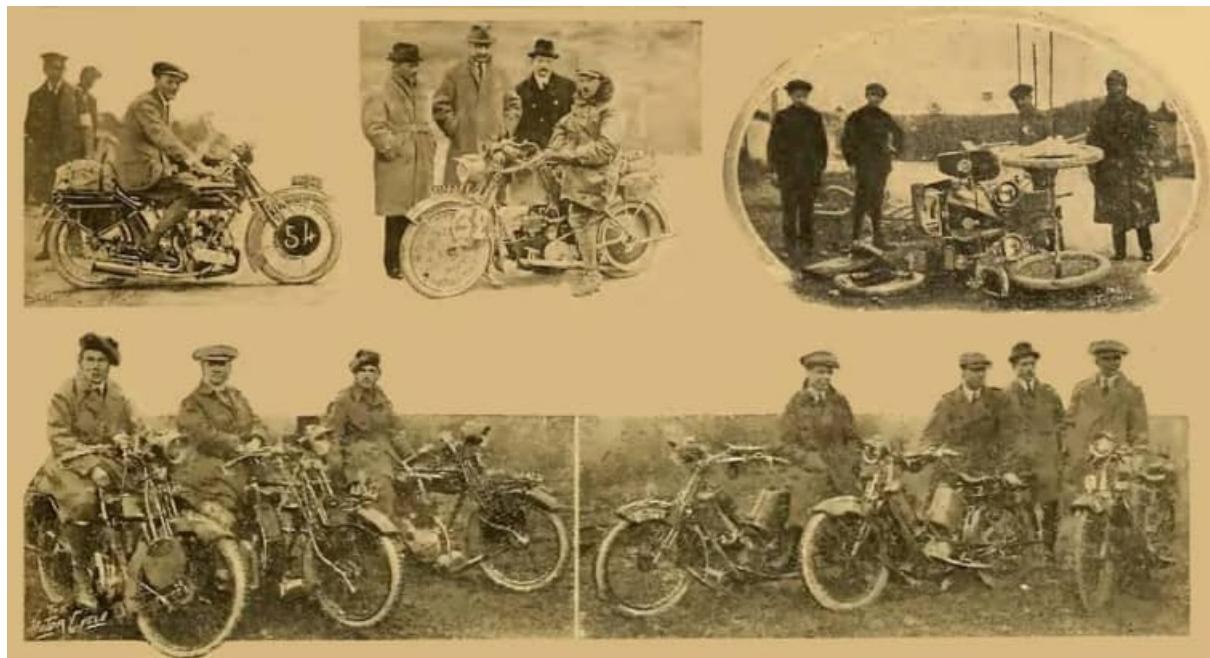
Left: “The only British lightweight team ride New Imperials.” Right: The vertical twin Bleriots.

last time we saw the latter was at Evreux on August 3rd, 1914, the day after the French Army mobilised. He was then a DR mounted on a Clement and wearing a Zouave’s uniform.” resumed...sidecar passengers were in two cases observed carrying the mudguards of their sidecars...the buzzing Scotts greatly attracted the attentions of the Lyonnais, who are great admirers of the English. The Moto Club de Lyon is an active body of enthusiasts, who gave the riders a very hearty welcome during the evening...The riders were soon, too, enveloped in frost, the whole countryside being covered with a white mantle of hoar frost. But the roads! Words can hardly describe the ruts and pot-holes. These excerpts from the Blue ‘Un’s report give an taste of the event: “...several French riders actually continued without lights—a remarkably dangerous procedure for themselves and other road users, but the sides of the road in France are notoriously loose...Naas (ABC) was towed into Dijon by a Douglas rider early on Saturday morning, and on the tramlines executed a hair-raising skid at the end of the rope affixed to his machine...The risks the French riders run are amazing! Brunell’s two-stroke Triumph and Greenwood’s two-stroke Connaught are the surprise of the trial, for they run most regularly and have climbed all hills with ease. The Scott rider’s team is complete, also the Sunbeam, and Harley-Davidson men are running like clockwork...Rex Mundy’s 3½hp Rover is going extremely well; but, curiously enough, his French



Top left: "Two of the Rover sidecars were equipped with Easting screens; a third took the form of a cab." Top right: "GL sidecar outfits—a machine of this make took part in the English Six Days Trial. Observe the height of the handle-bar." Bottom left: A Parket (Bolton), H Petty (Leicester) and V Horsman (Liverpool) were due to ride Big Four Nortons—Parker had to drop out "owing to the contraction of a severe cold whilst in Paris". Bottom right: "An Italian team: F Delauny, Isoldi and G Delauny with their Stucchi machines."

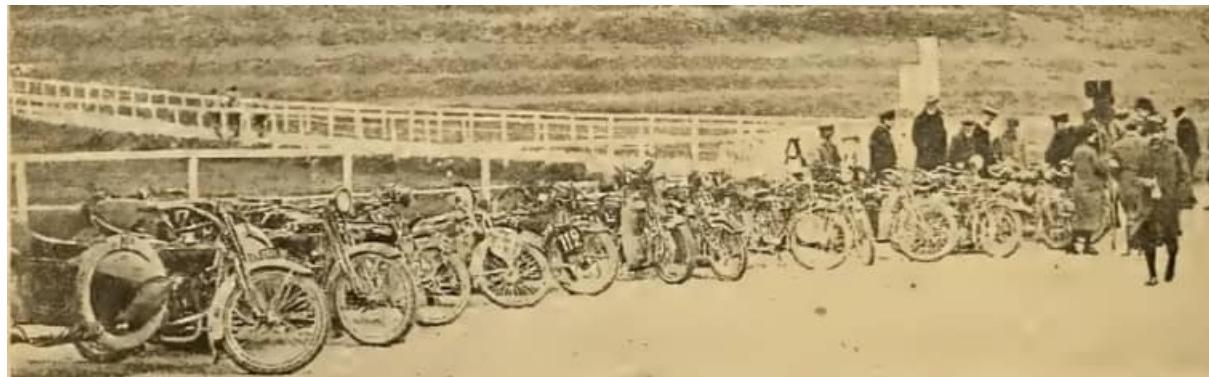
passenger speaks not a word of English, and Mundy admits that his French vocabulary is extremely meagre! Their signs, signals, and grimaces are, consequently, distinctly amusing...At Premeaux we caught up Major Empson, at first imagining that he had suffered a horrible accident, for we saw in the distance his AV monocar on its side. Closer investigation, however, showed that he had turned it over intentionally in order to fit a new spring, the original one having broken...Pletsier (Harley-Davidson sc) overturned while trying to avoid a wall, and managed to throw his passenger clean over it. Both got up again undamaged and It is no exaggeration to say that many were a foot deep. Passing competitors was next to impossible, and yet the sidecars scurried along marvellously well...Brunell preferred to ride between the tramlines as most others did, but when the track suddenly veered off to the right and a questionable macadam surface appeared he elected (in the dark of course) to continue along the lines and as a result, his front wheel dropped into a deep square gap between the rails and buckled the wheel Brunell was precipitated over the handlebars but, providentially, he was unhurt, though his front wheel was crumpled up beyond repair..The manner in which the French riders of the Harley-Davidsons, Indian, and Excelsiors blaze along, stopping every now and then to touch up any necessary parts, is an indication of the keen competition existing between them. On one occasion we were travelling at 40mph when a Harley sidecar easily passed us in a huge cloud of dust. A French rider whose consistent running has evoked general praise is EG Fery (4hp Douglas sc). Fery speaks English fluently, having spent a long time in this country. He has a cork leg, the result of an accident at Brooklands fourteen years ago, but as a private owner he manages his machine with remarkable dexterity. Columbel on a 2 $\frac{3}{4}$ hp Douglas is riding equally consistently...One of the 1920 French models, the Benoit-Gonin—the driver of which was kissed on both cheeks on arrival at Lyons, where the Benoit-Gonin works are situated—is going splendidly. The Moto-Solo two-strokes are also splendid little lightweights, judging by the way they keep up to time...Psalty (Rover) had made a splendid roadside repair to his sidecar spring with a shackle and yards of insulation tape...Outside Le Luc, Milner (Diamond-JAP) broke a valve spring, was some time



Top left: "Kaye Don (5-6hp Zenith-JAP), who gained highest marks, and made the best individual performance in the Paris-Nice Trial." Top centre: "M Brunet (3½hp twin-cylinder Bleriot with disc wheels) at the finish of the trial. He was the sole survivor of his team." Top right: "Not an accident: Among the many competitors who had trouble in consequence of the atrocious road surface was Major Empson. He had to refit a new rear spring to his AV; he was complimented by many competitors on his plucky and successful completion of the run." Bottom left: The Sunbeam team, T Gillies, F Rutherford and JA Newman. Bottom right: The Scott team, WL Guy, CP Wood, and HO Wood.

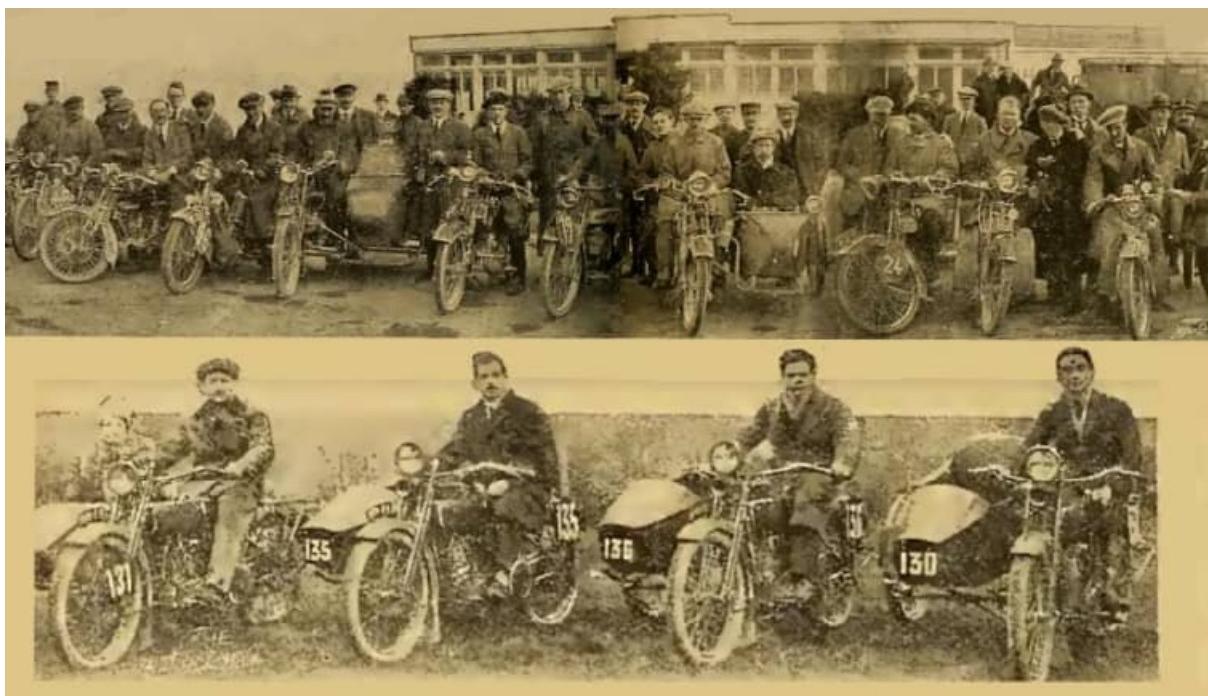
tracing the trouble, and then could not remove the spring. He lost much time, yet stuck on gamely, but in endeavouring to make up time on the descent of the Esterels, he fouled a corner and he and his machine turned three somersaults, so he told us. The forks were bent and rubbing the tyre, the mudguard crumpled so badly that he had to remove it, but, not to be beaten, he carried on to the end, only to miss an arrow at the top of La Turbie...A goodly crowd had assembled on the promenade to greet the hungry riders who had survived 6½ hours' riding on coffee and a roll. Machines and riders were promptly decorated with beautiful mimosa. Can it be wondered that lunch was welcome?...After lunch the road ran along the sea front to Nice, past glorious and sweet smelling flower beds. Orange trees were abundant...But the end was not yet, for an ascent of the sinuous La Turbie and on to Mont-Agel was arranged with a slow and fast hill-climb. It was extraordinary and only typical of French rules of the road that the riders were allowed to race up while cars descended. Capt Wood (Scott) encountered a car during his timed ascent, and was forced into soft gravel and fell—but neither machine nor rider was hurt..." At the end of four days's hard riding 45 survivors rolled into Nice. "British Six Days Trials competitors agree in the opinion that the Paris-Nice event was—this year, at any rate—more severe than any six days event organised so far in Great Britain, which opinion will please the ACU, and interest 'Six Days' competitors. It may be argued that 750 miles in four days is surely no searching test for a modern motor cycle, but the fact remains that long stretches of notoriously pot-hole roads—the Rhone Valley in particular—comparable with nothing we know in the British Isles (the pave, the dangerous railway and tramway setts), accounted for many troubles, and a large percentage of those machines which survived the ordeal bore unmistakable traces of the severe strain that they had received...The competitors, headed by

Kaye Don (Zenith), arrived in a bunch...The Atlas Garage, Nice, where the machines were stored at the end of the trial, was ideal for the purpose. The scene witnessed after the descent from Mont-Agel was of a kind never witnessed in England. The competitors drove in under their own power and in any order. They had all been riding in a bunch, so after three minutes' exhibition of trick riding the place was full. The effect was curious in the extreme: first, dead silence, the clatter of the exhaust of the first man, then a terrific din, a mass of



"At the summit of Mont Agel competitors were entertained to tea by the Nice Golf Club. Our photograph shows a group of competing machines outside the golf club house."

laughing motor cyclists twisting, turning, and manoeuvring for a place, and then all was quiet once more...Of course, it was a race in French people's eyes, and even the manager of the Hotel Atlantique, where we stayed, was more interested to know who had won than in the rooms for which we sighed, having had a total of ten hours sleep in four days. Truly, the competitors' lot was severe, but pity the journalists, whose lot is not easy, and who obtain no gold medals! But the run was worth it all." The trial concluded with a day of special tests and machine inspection. Up to 200 points were awarded for reliability (maximum 60), silence (20), non-stop (20) flexibility (30), brakes on level (20), brakes on hill (20), starting from cold (10), and spare parts (10). Best performances were: 250cc, E Dubost (Motosolo) 127.2 marks; 350cc, WM Greenwood (Connaught) 141.9; 500cc, Barthelemy (Rover) 150.8; 750cc, Kaye Don (Zenith) 154.9; 500cc sidecars, Guignet (GL) 125.5; 750cc sidecars, WD Hawkes (AJS) 135.5; 1,000cc sidecars, Verpault (Harley-Davidson) 146.1. Trade team prize: 1, Scott; 2, Harley-Davidson; 3, Triumph; 4, Sunbeam; 5, Harley Davidson team 2; 6, New Imperial; 7, Rover. Club team prize: 1, Moto Club de France; 2, Touring Club de France; 3, Ilkley & DMCC; 4, Moto Club Parisian.



Top: Tired but happy: Paris-Nice survivors at the end of the trial. Bottom: From left, Messrs Boisserie, Bonnard, Moreau and Collot, all on Harley combos.



"Two French machines, a Bleriot and a GL, in the Paris Nice Trial. (Right) After the Paris-Nice Trial several of the competitors took the opportunity of visiting the magnificent scenery of the Alps. The photograph conveys a good idea of the country visited, and cannot help but create the longing to visit this fine touring ground."

PS: "QUITE A SENSATION HAS BEEN CAUSED in French motor cycle circles by the decision of the Union Motocycliste de France to refuse to accept the results of the Paris-Nice Trials. As a consequence the event must be considered as non-existent...[it is] very unfortunate for the British competitors who went to France at considerable expense and trouble, and who appeared to have won a victory. It naturally throws discredit on the whole motor cycle movement, for the hard fact has to be admitted to the general public that a sporting event to which great importance has been attached must be looked upon as a farce...In a conversation with one of the officials of the Union Motocycliste it was ascertained that the men responsible

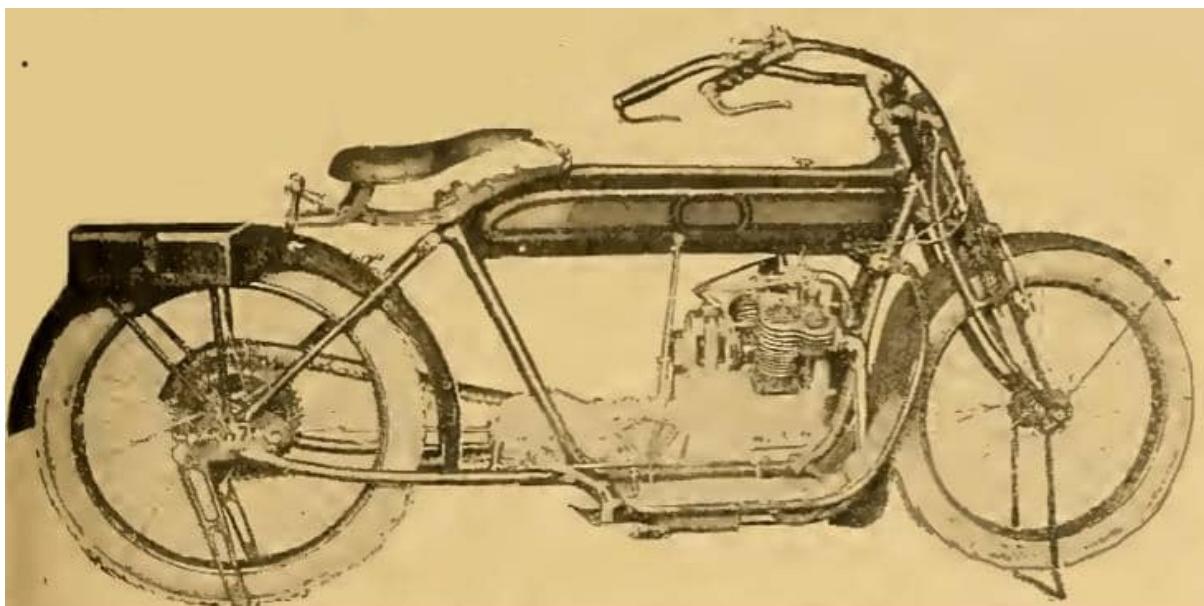
for this event were totally unable to furnish proof that the results claimed had been obtained. The lack of organisation extended throughout the event. No proof could be furnished that the individual riders had checked in and been checked out of the various controls between Paris and Nice.

PARIS-NICE A MOTOCYCLETTE

L'étape Marseille-Nice obtient un très beau succès
Aujourd'hui : Concours de Freinage

Do gauche à droite : M. PAYARD, président du Motocycle Club ; 138 VERPAULT (l'est arrivé à Nice) ; 144 ETAVE ; La Passagère du 102; 104 REX MENDER et son passager WOOLF; 127 MULLIMAN (Américain.)

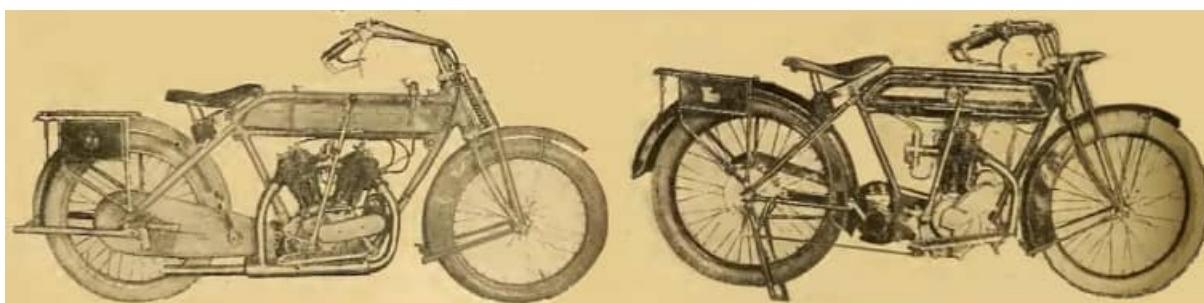
"BELGIUM SEEMS TO BE PREPARING for great motor cycle developments, to judge from the exhibition just held at Brussels...So little is known in England as to what happened in industrial Belgium during the four years of German occupation, that the importance of this exhibition, coming only a little more than a year after the Armistice, will not be fully appreciated. Although in the greater portion of Belgium there are few external signs of the destructiveness of war, the factories were, without a single exception, stripped absolutely bare of both machinery and supplies, Thus, before it was possible to produce, new tools and machinery had to be sought and brought in from the outside, and the engineering shops had to wait until the steel plants were in production before they could do any real work. On this account, it is not surprising that the Brussels motor cycle show should be dominated by English makers, with a sprinkling of Americans and Italians...Although the FN did not exhibit at this show, it is understood that the firm is almost ready to make deliveries, and expects to produce 15,000 machines during the present year. These will be the well-known single and the four-cylinder types, with a number of detail improvements. The next most important Belgian firm is Sarolea, which exhibited a 3½hp single with chain-cum-belt drive, and a sporting type sidecar. There were two new firms, Gillet and Brevets Spring. The former exhibited two types of machines a single cylinder two-stroke and a twin-cylinder four-stroke." Both featured unit construction and (as adoption) electric lights.



"A combined V-twin and gear unit is the chief feature o(the Brevets Spring design."

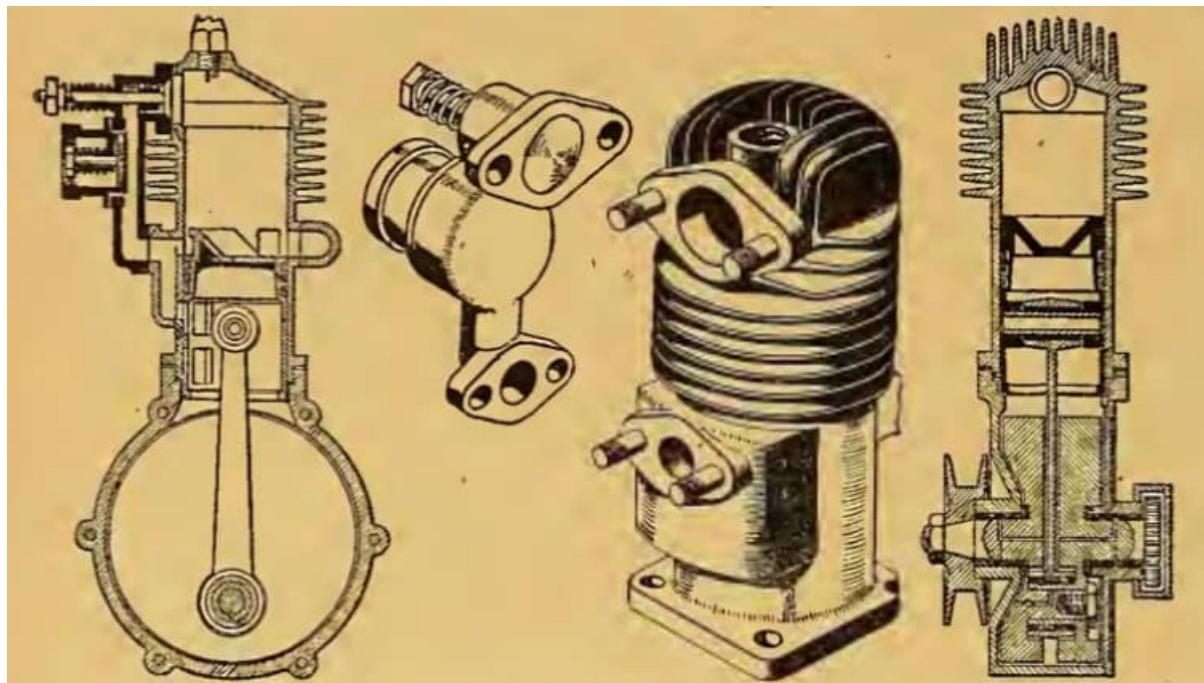


Sarolea exhibited a 3½hp single with chain-cum-belt drive.



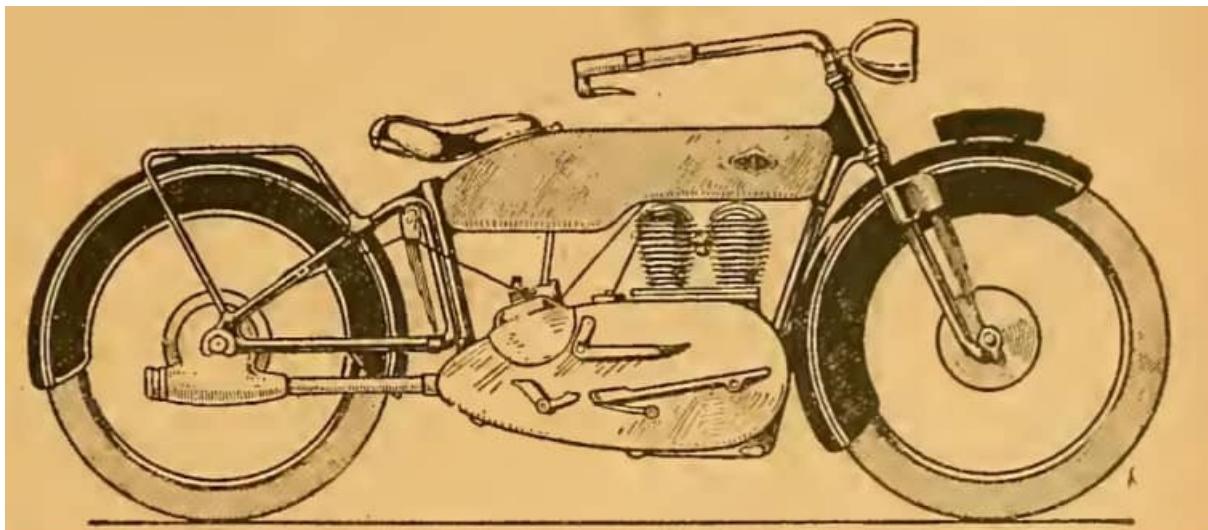
"The Frera twin—a machine following more or less conventional lines.(Right) A single-cylinder Frera which at first sight appears to be a composite of two well-known British designs. "

"ALTHOUGH AMERICA WAS THE HOME of the two-stroke boat motor, bicycle power units working on the same principle have not been nearly so popular there as in this country. The two-stroke lightweight is indeed particularly our own, only two examples having hitherto appeared in America, and both of these have been largely based on British design. A new machine, however, is now being manufactured in Chicago, which embodies several features not usually found in conventional two-stroke practice. Known as the Yankee, this new model is being made by the Illinois Motor Co. Its dimensions are 63.5×76.2mm. (241cc), and its power will therefore be in the region of 2½hp. Conventional three-port practice is not followed, since the induction pipe enters the transfer passage and is closed by an automatic valve, while there are two rows of ports in the piston, in addition to the transfer and exhaust ports in the cylinder walls. A separate casting forms the transfer passage, and this is bolted on to the cylinder, while an atmospheric inlet valve and cage is screwed into the former casting." It was claimed to do 140mpg.



"The Yankee two-stroke engine incorporates two automatic valves in the detachable transfer passage, and the larger of these controls the induction of gas from the carburetter."

"IN RECONSTRUCTING THE FRENCH MOTOR CYCLE industry, the manufacturers of that country appear to have abandoned most of their pre-war designs. A large number of entirely new types have appeared. The 7hp Lutece is one of these new designs." It's spec, for 1920, was startling: 998cc in-line vertical twin unit-construction engine; a compressed air starter built into the three-speed gearbox that also served as a tyre inflator; shaft drive; leaf-sprung cantilever rear suspension; one front and two rear drum brakes—one rear brake and the front brake were linked and controlled by a handlebar lever that could be locked on as a parking brake, with a pedal controlling t'other rear brake; mag ignition with a dynamo for the lights; and forced-feed mechanical lubrication via a camshaft driven oil pump. All-up weight was about 400lb with a top speed of 55mph.



Lutece: "A French design embodying several modern and unconventional ideas."

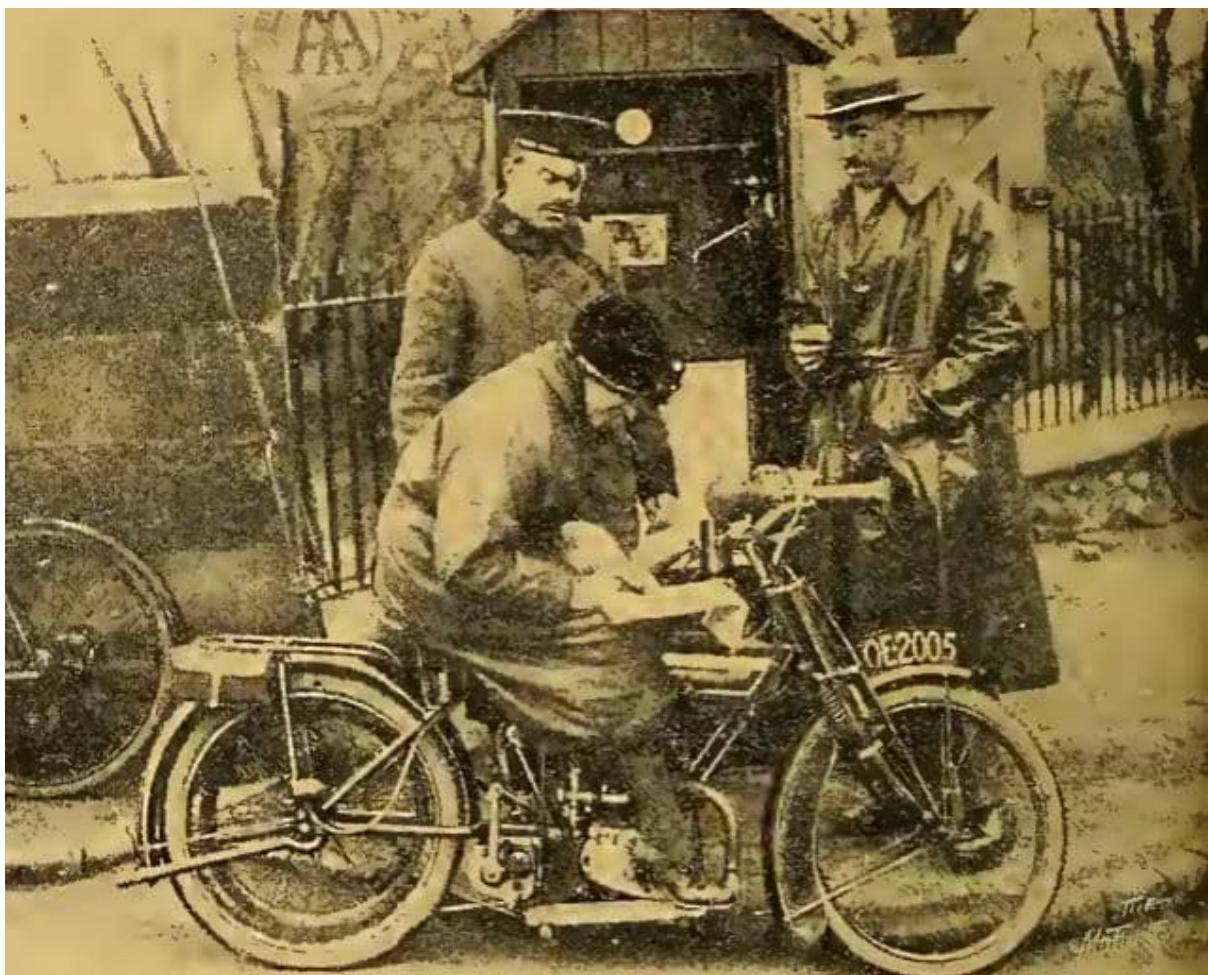


These riders, pictured at Auxerre, in Burgundy, were former dispatch riders and proud members of the Association des Anciens Motorcyclistes Militaire.



"Prince

Albert and Prince Henry are enthusiastic owners of motor cycles. The Princes are here seen Starting up their Douglasses after attending a lecture at Trinity College Cambridge."



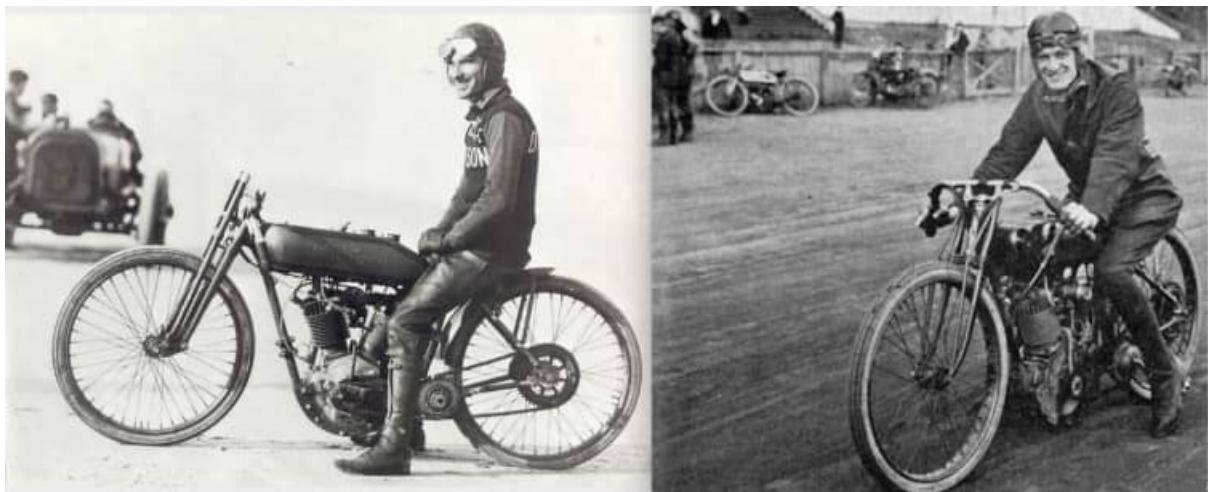
There's nothing new about fuel price protests: "The AA defensive. A scout obtains signatures for the petrol price protest. Despite the great economy of the Connaught, its fair owner considers it

worth while...The ACU is actively co-operating with the AA in obtaining signatures to the latter organisation's petrol price petition to the Prime Minister."

"WITH AN 'OVERSIZE' ENGINE", ie, 1,114cc, the Harley-Davidson racing experts established new records last month on Daytona Beach, Florida, which extends for fifteen miles, and is said to be one of the finest stretches of open ground in the world. For the kilometre and mile distances the new solo records are well over 103mph with a 1,000cc engine, while 111.98mph is the figure with one of the new type 'oversize' engines." Leslie 'Red' Parkhurst set the overall top speed on the over-size Harley; his team-mate Fred Ludow covered a kilometre in 21.75sec on the 1,000cc 'pocket-valve' model to average 102.75mph. Then Fred climbed into a sidecar and Red rode the outfit to set another record of 87.52mph over five miles. Red's other records during an eventful week included 107.86mph over five miles.



Red Parkhurst with Fred Ludlow in the sidecar after their 84mph run along the beach. The record promoted sales of the latest Harley Model 20-LX 'Bullet' sidecar.



Fred and Red had a great week.

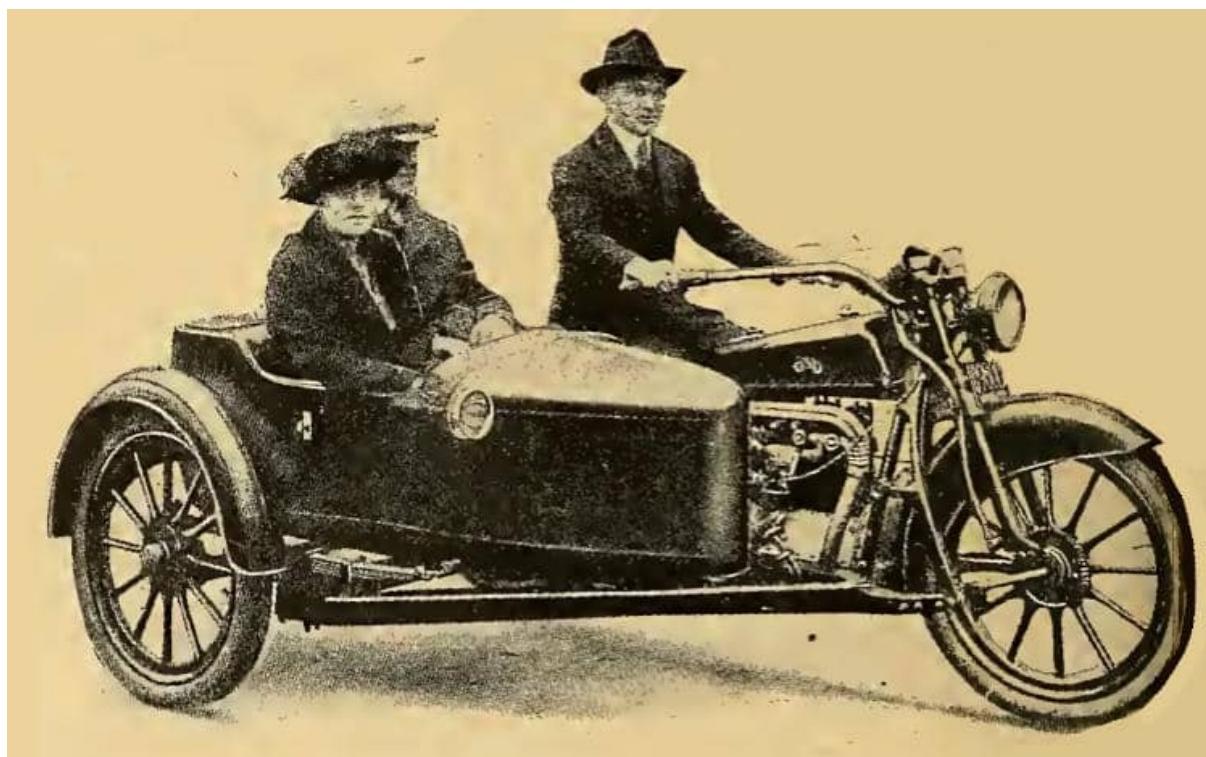
"IN THE ISSUE OF APRIL 22ND we published particulars of many new speed records set up last February on Daytona Beach by Harley-Davidson machines. News of still greater speeds has been recently received from over the water. On April 15th, and 16th the Indian racing experts made a successful attack on the above-mentioned records, covering the mile, with an eight-valve (998cc) Indian, in 31.1sec at the remarkable speed of 115.7mph. The same distance was made in 34sec by the Powerplus model, equal to 105.7mph, while a speed of 87.8mph was attained by a four-valve (500cc) Indian. The British record for this distance with a 500cc engine is 78.95 mph." Gene Walker was the man in the Indian's saddle. The previous year he had claimed six nation wins for Indian against Bill Ottoway's Harley Davidson 'wrecking crew'. Inevitably Indian was going to challenge Harley's speed records so they followed Harley to Daytona and snatched 24 national and international speed records including the first FICM world record (the actual record was set at 104.12mph). To record his success India dubbed its Powerplus engine the Daytona, just as Triumph would do many years later.



Gene

Walker set the first FICM record and was the fastest motor cyclist on the planet.

THE BLUE 'UN HAD AN ACTIVE US correspondent named EB Holton whose prose were as American as Ixion's were English: "That venerable old gentleman, name o' Father Time, he of the flowing robe, chin adornment and the grass cutter, has of late been treated in a rough and unseemly manner by motor cyclists here. These more-or-less-United States may be dry, but the fact does not keep an internal combustion engine from functioning. Every event this season on track or road has resulted in a battering of the former record." Having detailed the Harley and Indian record blitzes at Daytona Beach, he pointed out: "...the electric timer has been certified for accuracy by the US Naval Observatory. All rules regarding the running of record trials as laid down by the FICM and the ACU were complied with, and on confirmation by the former body the marks will stand as world's records." And so, of course, they did. There was also news of the latest models: "The newcomer to American motor cycle ranks, the Ace, is now being road tested by its designer, WG Henderson. One passed through Newark last week on a long test that was successful, and the designer will go ahead with production, fifty new motor cycles being the planned output for the month of May...After much delay the 1920 Excelsior has reached the delivery stage. The new machine is a good looking outfit with sober Royal blue enamel, wonderfully wide mudguards and a sturdy front fork that is an adaptation of the old Henderson fork...Harley-Davidson are about to announce electrical equipment for their Sports model. It is understood that a generator of their own manufacture will be used...A successful four-cylinder Vee motor cycle engine has been designed and tested out by its inventors in Hartford, Conn.



"The sidecar over-developed: The machine depicted is the Militor, which has a four-cylinder engine, shaft drive, three speeds and reverse, artillery wheels, and car type springing. The sidecar accommodates two passengers in staggered seats."



"Attempt on 350cc twelve hour record: Last Thursday, FA McNab made a plucky effort to establish new record figures at Brooklands. He rode a 345cc horizontally-opposed Wooler (standard model) and, after completing 144 miles 64 yards at an average speed of 40mph, he was compelled to retire with a broken connecting rod. It is hoped that his next attempt will be favoured with better luck." In the same week G Dance won the 350cc flying-kilometre class at the Liverpool MC's speed trials at 74mph on his 2½hp Douglas.



"The non-stop reliability trial from Durban to Ladysmith and back proved a strenuous affair, only six of seventeen riders arriving as far as Ladysmith; only five completed the full journey." J Parks

(pictured) won the Lamon Trophy for the fastest time on a combo aboard his Indian. J Booth won the Rudge Trophy for best solo time on a Junior Triumph, average 21mph over the gruelling 310-mile route.



"A keen rider of a Harley-Davidson, sidecar, Mr J Graham, of Wrexham, who, though he has only one leg, is quite at home on his outfit. He also manages the machine well as a solo. The only alteration to the standard equipment has been to provide a hand lever to actuate the brake."

"AN AMALGAMATION FORESHADOWED: We hear a rumour that an amalgamation is about to take place between several firms in the motor cycle trade for the purpose of producing a cheap utility type motor cycle at a price which will enable American competition Overseas to be met. It will be an all-British production."

"A SHORT, SPORTING COURSE, a fine day, an early start, and good organisation. All these helped to make a success of the Sutton Coldfield and North Birmingham AC's Colmore Cup Trial...The entry comprised almost every well-known make of machine, and amongst the most interesting we noticed that Albert Milner's Diamond special overhead valve cylinder fitted to JAP crank case, the rockers being carried in an aluminium bracket bolted to the cast iron head—an adapted job very neatly carried out. Greenwood's single-cylinder Sunbeam and sidecar had the experimental M-L lighting set incorporated with the magneto...F Porter made a marvellous show, riding a single-gearred Levis, which he persuaded up the hills in a manner which would not have disgraced a machine of double



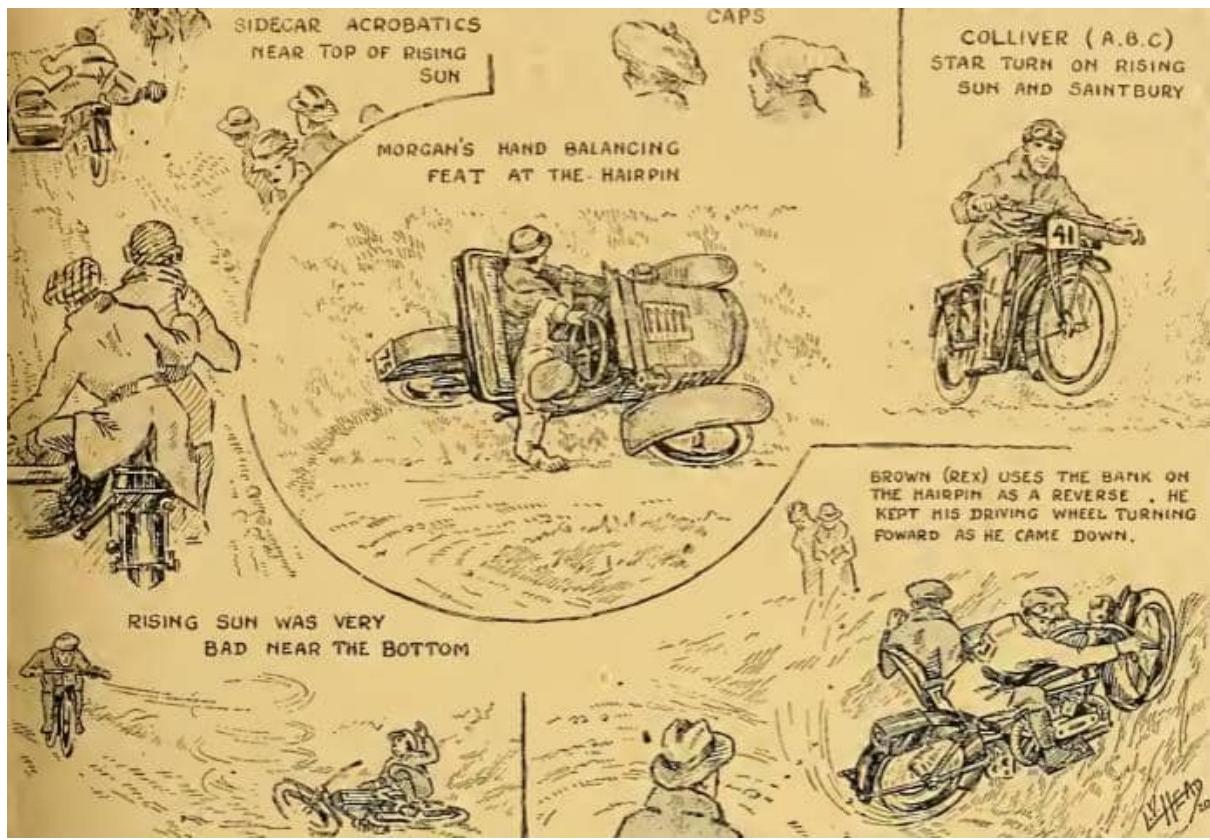
"The 'Hairpin' in the Colmore Cup Trial. WE Smith (Triumph sc) and J Cooper (3½hp Norton) negotiating the bend in Sudeley Park which gave some competitors a good deal of trouble."

the engine capacity. FA Applebee (ABC) probably gave the star performance in the flexibility test from a spectacular point of view. He covered the slow portion at a speed little more than the limit for balancing purposes, and when he accelerated he skidded first to one side of the road and then the other, saving himself from falling by vigorous digs at the banks, and finally getting away with a terrific burst. Colliver, on a similar machine, gave a spectacular display in climbing the hill at speed...G Kuhn's Levis literally sang with a very musical note up the hill, and its accelerative powers were probably equalled only by the ABC machines...Taking the performances as a whole, perhaps the most noticeable points were the sporting climbs of the single geared Nortons, the fine performances of the Levis and ABC machines, the wonderfully steady climbs of the light two-strokes, such as the Ivy, Verus, Allon, James, etc, and the steady pulling of the James, Enfield, and Excelsior sidecar outfits...the piece de resistance was the ascent of Gamble's Lane...the smaller machines seemed to hold the road in the grease infinitely better than the heavy brigade...Charlesworth slid into the ditch repeatedly, but finally got away after receiving assistance...RM Brown's passenger leaned over the Norton carrier to help obtain wheel grip...Riley (8hp Enfield sc) failed owing to repeated front wheel skids, JN Roberts (Verus) turned right round on the grease, and Busby (Verus) actually went through the Sudeley Park hairpin bend test twice—he merely followed the arrows. He was successful both times, but the slip lost him twenty minutes. It was Busby's first competition, and he rode very well throughout the trial. He is only a little over sixteen years of age...HFS Morgan emulated his performance of 1913 in the hairpin. He rode up the bank with his left front wheel and saved his machine from turning over by forcing it back to the normal with his hand on the ground. He did not stop...Fancy head wear is



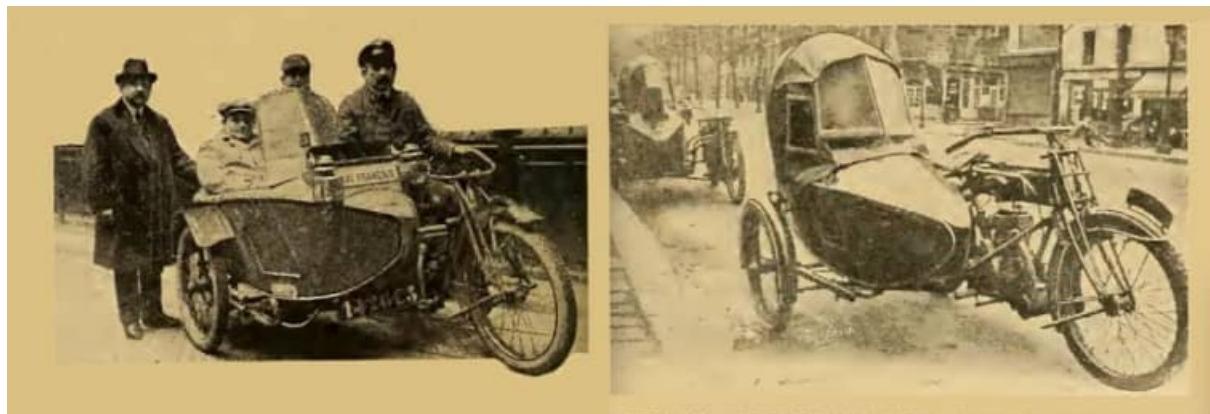
"Watson (4hp Norton sc) has to use his full lock on the hairpin bend test."

again fashionable. One of the Ariel riders had a neat stocking cap of white, his passenger the same thing in scarlet." **Colmore Cup results:** Colmore Cup, WB Gibb (3½hp NUT); 2nd, L Newey (6-7hp Ariel); 3rd, G Dance (3½hp Sunbeam). Team prize: Ariel L Newey, JL Stocks and FJ Watson, all on 6-7hp Ariel twins. Best performance by an amateur: JA Watson-Bourne (4hp Blackburne); 2nd, H Boynton (5-6hp James sc). Best solo performances: 250cc, WB Gibb (2¼hp Levis); 350cc, B Kershaw (2½hp Verus); 500cc, Eric Williams (3½hp NUT); 750cc, L Sealey (4¼hp BSA); 1,000cc, HJ Willis (10hp Reading Standard). Best sidecar performances: 500cc, G Dance (3½hp Sunbeam sc); 750cc, H Boynton (5-6hp James sc); 1,000cc, L Newey (6-7hp Ariel). Levis Cup, F Porter (2¼hp Levis single gear). Twelve riders won gold medals for non-stop and full marks; 32 won 1st-class certificates (lost up to 10 points); 16 won 2nd-class certificates (lost up to 25 points); nine won 3rd-class certificates (lost up to 35 points). Acceleration hill-climb test: FA Applebee (3hp ABC) and EA Colliver (3hp ABC), tied.



Blue 'Un staffers at the Colmore Cup Trial included an artist...

"MY NEW MACHINE," IXION REMARKED, "was accompanied by an extremely exhaustive and praiseworthy 'book of the words'. Delight at this novelty was tempered with wonder when I perused an audacious suggestion that, if I suspected air leaks in the induction system, I should run the engine inside a closed shed and hold a lighted taper near the joints. I hold my life cheap enough, goodness knows, but an air leak does not drive me so far towards despair that I leave it to the Fates whether I should die by fire or by asphyxiation."



"Seeing that the sidecar is more fully recognised in this country as a passenger vehicle than in France, it is anomalous that it should be left to Frenchmen to develop the idea of forming a taxi service. The Harley-Davidson outfit shown is now plying for hire on the streets of Paris. (Right): Sunbeam GL outfits used in Paris on taxi service."

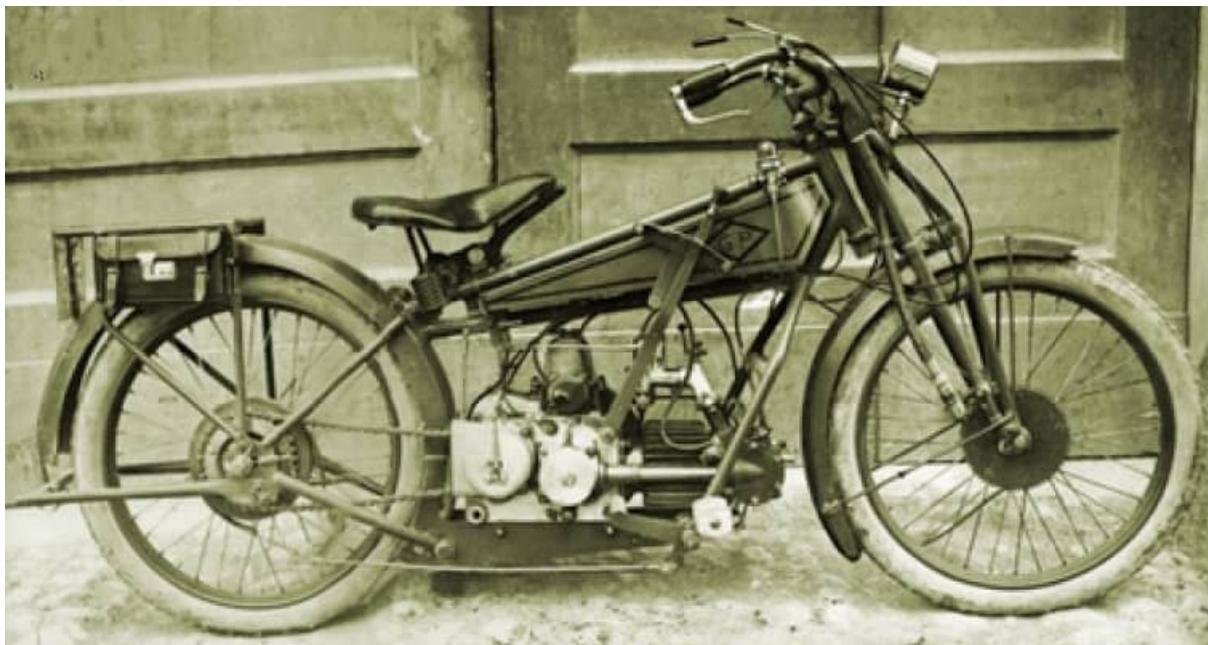
"WE CULL THE FOLLOWING from *Court, Society, and Personal* in Saturday's *Daily Mail*: "Sir Philip Sassoon, the Premier's private secretary, returned to his duties yesterday after a week's absence owing to a motor scooter accident. While 'scooting' in Hampshire he wanted to stop

urgently, but through not having learned the mechanism sufficiently he pulled the accelerator instead of what he thought was a 'stop' lever. The result was a bad spill into a gravel bank. Sir Philip has now given up the scooter, and also an aeroplane which he bought last summer.' Whilst sympathising with Sir Philip in his unfortunate accident, we can safely predict that he will give up all his mechanical toys if he persists in 'pulling the accelerator' when he desires to stop!"



"The start of the opening run of the recently formed Penzance & DMCC to Helston and Porthleven." The new club had 60 members and planned weekly runs, competitions and technical talks.

"DETAILS OF A MOTOR CYCLE of original design has been sent to us from Italy. The engine has a bore and stroke of 88x82mm, (498cc), its single cylinder is horizontal, and it has overhead valves operated by overhead camshaft. Its ignition is by two plugs and a double-spark magneto. The gear, which is an extension of the crank case, contains three speeds, multiple-disc clutch, and a kick-starter. From this the drive is taken by a chain to a shock absorber in the rear hub. Both wheels are controlled by band brakes. A speed of 64mph is claimed for this machine, together with an entire absence of vibration. It is manufactured by Carlo Guzzi." During the war three enthusiasts serving in the Servizio Aeronautico became friends and dreamed of building motor cycles. Carlo Guzzi serviced the aircraft flown by Giovanni Ravelli and Giorgio Parodi, who was heir to a shipping and armaments business. It was agreed that after the war Georgio would provide the finance, Carlo would design a world-beater, and Giovani, who had won races before the war on his Triumph, would ride in competitions to publicise the new bike. Soon after war's end Giovani died in a flying accident; in his memory the Servizio Aeronautico eagle emblem was incorporated into the firm's logo. The 1920 prototype, built by Carlo with help from his brother Giuseppe, bore the name GP, for Guzzi-Parodi. But when it went into series production the name under the eagle was Moto Guzzi.



"An Italian design embodying a single-cylinder horizontal engine of 498cc—the Carlo Guzzi."



...and, unless they happened to be colour blind, here's how passing Italians would have seen the first production models.

"PERSONAL TASTE EXPRESSES ITSELF in some peculiar ways, but perhaps the strangest example of this connected with things motoring was a sidecar we recently saw, the panels of which were thickly enamelled a bright yellow as a background for intricate Chinese designs in black, gold, and red lacquer work. This highly ornate vehicle was attached to a New Imperial twin, and was apparently a private turnout, and not an advertising stunt. If this sort of thing goes on we shall be having sidecar bodies panelled with valuable oil paintings, or decorated with cameo carvings, or perhaps the newly ultra-rich will indulge in repoussé panels of gold."

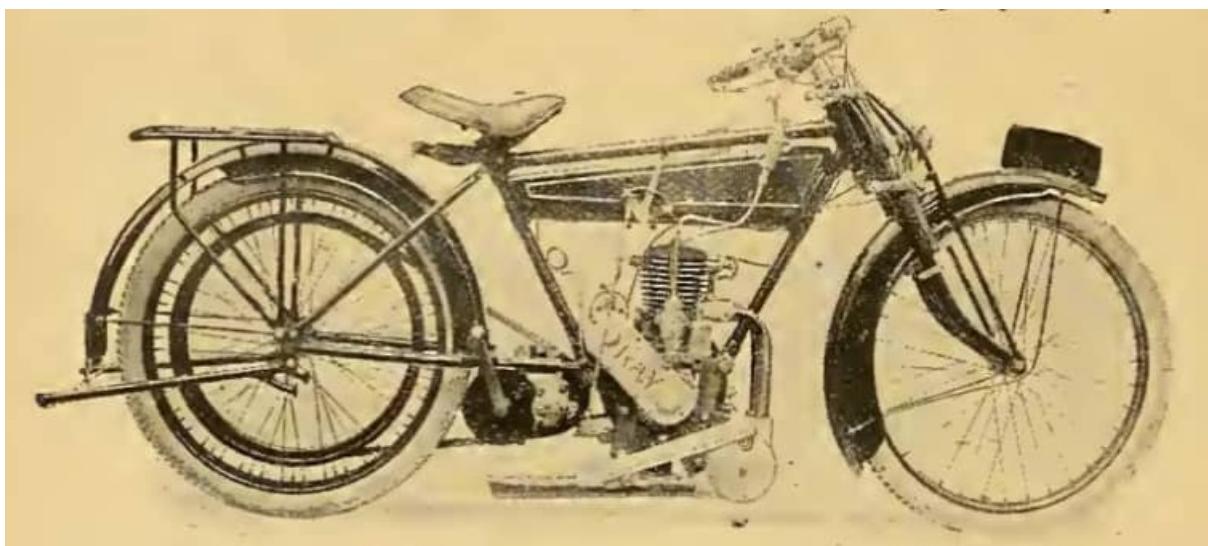
"WITH MODERN MOTOR CYCLES, tools are not often required on the road, and careless riders are apt to leave them in their garages. Motor cyclists should remember that when a tool is required it is generally wanted badly."

"A CORRESPONDENT WRITES to say that he recently received over 800 replies to one small advertisement in *The Motor Cycle*."

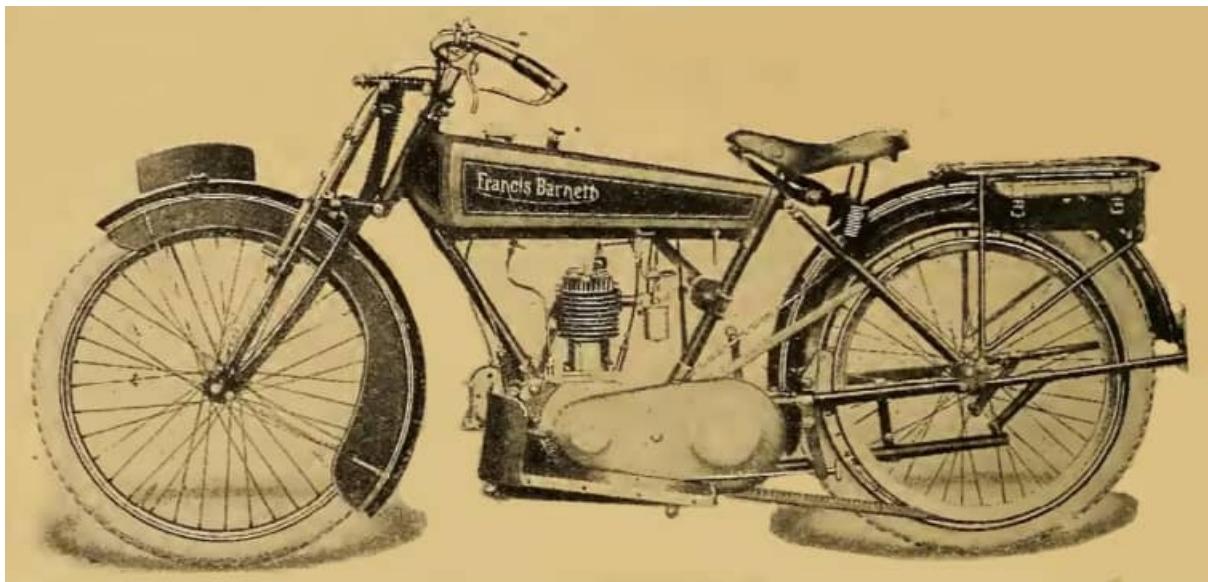
"WHILE IT IS DOUBTFUL WHETHER the supply of sidecar machines will meet the demand this year, it would seem that there will be no dearth of lightweight motor cycles, for new 'makes' appear on the market every week. It is noticeable that most of these new motor cycles are fitted with either the JAP 2 $\frac{3}{4}$ hp or the Villiers two-stroke engines, therefore the production of such machines is only limited by the productive abilities of the firms concerned, and also of those firms who supply gear boxes and frames." The Birmingham-made Gough used the Villiers lump, with a Burman box and Brampton forks. The Ready put Weston-super-Mare on the motor cycle manufacturing map; it also used Brampton forks but with a JAP/Albion driveline.



"The JAP-engined Ready lightweight of 2 $\frac{3}{4}$ hp. (Right) A neat two-stroke of conventional design, the Gough."



The Ray Motor Co, with a rather posh address, Piccadilly, London W1, joined the market with a 3hp 331cc two-stroke. A twin-port head was said to improve scavenging with "no possibility of any detrimental back pressure". Equipment included a CAV mag, Burman two-speeder and Saxon forks. It was soon joined by a 2 $\frac{1}{2}$ hp 269cc stablemate with a Roc two-speed box.



Francis Barnett launched a lightweight with a 2 $\frac{3}{4}$ hp sidevalve JAP, two-speed Sturmey-Archer, CAV mag, B&B carb and Brampton forks. The Blue 'Un reported: "In place of novelty, refinement is apparent at many points, while on the road it handles easily, is exceptionally quiet, and provides an unusually comfortable riding position."

"IT IS WITH REGRET that we notice a growing tendency to criticise the rules governing a competition after the event has taken place. Lately there has been far too much complaint concerning results; and, whilst we admit that in certain cases criticism has been warranted, yet it is much better to accept results in a sportsmanlike way, provided the condition of the trial have been observed. After all, the majority of club officials are honorary workers, and willingly give their time for the benefit of the pastime. If their commendable efforts receive such scant appreciation result will be declining interest...in many quarters the feeling is growing that a certain section of competition riders show no conciliatory attitude, their one object being to win or know the reason why. A little more of the true British sportsmanship would be welcome in the motor cycling competition world just now, and we sincerely hope that we may not find it necessary to revert to this subject again."

AN INTER-VARSITY HILL CLIMB.



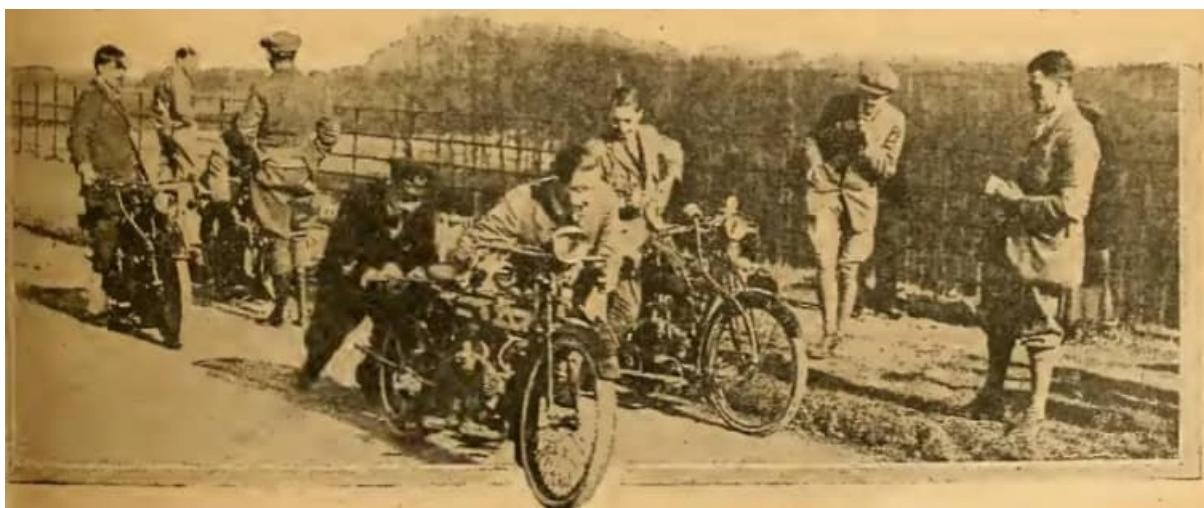
Preparing for the climb

Motor Cyclists at Oxford and Cambridge Universities – Organise Sporting Event.

"THE FIRST POST-WAR INTER-VARSITY motor cycle event resulted in a dead heat, each University gaining 32 marks...The event created a great deal of interest, and, considering the fact that the delivery of new machines is slow, the number of competitors was quite remarkable. Of the two universities, Cambridge produced by far the most entrants, and it is a curious fact that motor cycling has always flourished to a greater extent on the Cam than on the Isis. Among the numerous machines to be seen at the start, we noticed two of the new NUTs, a Beardmore-Precision, and one of the new flat-twin Harley-Davidsons. Among the competitors, the best known rider produced by Oxford was Openshaw, who is now a professor of engineering at the University, and is riding an overhead valve Zenith, the only machine of its type in the competition, which, as usual, was wonderfully fast, and well ridden. On the side of Cambridge, we noticed TV Prestwich, son of Mr JA Prestwich, of JAP engine fame, who was riding a Diamond...The event concluded with a slow hillclimb over a distance of 100 yards. Slipping of clutches or touching the ground with the feet was forbidden. The first three classes (250cc, 300cc and 350cc) were not counted, as Oxford could provide no entrants, so that Cambridge had a walk over in these events."



Left, LP Openshaw (Senith) made the fastest climb of the day for Oxford; JV Prestwich (Diamond) won the lightweight class for Cambridge.



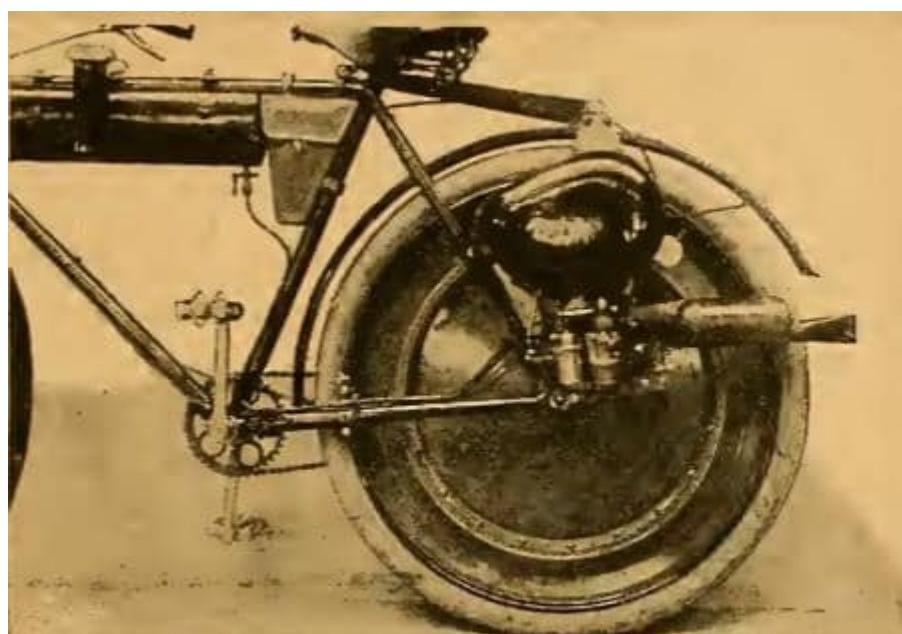
"A Douglas owner at the start of the 350cc class."

READ AND ABSORB THESE WISE WORDS from Ixion: "Some fools go about the world proclaiming that motor cycling is an expensive hobby. Now, nobody has owned more thoroughly bad motor cycles than I have; I entered the hobby twenty years ago, and I am cursed with a simple and trustful nature, which puts me at the mercy of any glib sales manager. Nevertheless, even when one motor cycles under such a heavy handicap, the sport is a positive economy compared with other hobbies I could name. Take photography, for example. We generally fall under its spell during our first serious love affair...After a while we find that the camera does not produce pictures which are worthy of her...We discover that a £40 reflex camera with a £20 lens is desirable fr this purpose. We get it. So it goes on. Gardening is just as bad. Tulip bulbs are 3d each, but £6 per 1,000: it is obviously an economy to buy 1,000; we do so. We discover that standard apples are back numbers. We burn them during the coal shortage, and order cordons. It turns out that you require about 3,000 cordons to replace about three dozen standards: also that whereas cordons are listed at 1s each in the pre-war catalogue which inspired us to burn our acre of standard trees, they have now risen to 5s apiece. I make no charge for all this information, which is simply invaluable to all married motor cyclists. Now Mrs Ixion often grumbles about my bicycles—the number of them, the noise they make, their dirtiness, the company they get me into, the money I spend on them, etc. But she has also lurid memories of

my camera days, and eke of a brief spell of gardening fever which once possessed me. So when I want a new motor cycle, I do not say, 'My dear, Billy Wells writes to say he can do me a new 7-9hp Indian next week.' Oh no. I remark casually that motoring in winter is a mug's game, and that I think I shall make lantern slides or that it is absurd to pay 9d per lb for sour cooking apples, and that I shall rent a bit of ground and grow my own next year. There comes into her eyes that half-timid, half cunning look which wives wear when they think they are managing you. She says nothing at the time. At breakfast next morning she murmurs, 'Darling, you do not seem to have had a new motor bicycle lately. Are you hard up? If so, I have still a few pounds left of Uncle Joe's little legacy, and you have been rather a dear lately.' Then I write to Billy Wells. Do not overdo it brethren. It is only necessary to coquet with photography or gardening just long enough to show them a husband may have worse faults than motor cycling. As detailed tips, I specially recommend a whole-plate reflex for photography on this system, and orchids as the best phase of the gardening stunt; they cost pounds, and they do not come into flower for ten years, if at all."



Power Cycle Engineering; the name said it all. The company provided power for bicycles, in the form of a 104cc clip-on two-stroke engine that weighed 23lb and could be fitted in about 30 minutes. A countershaft with free-engine device allowed the bicycle to be pedalled in case of engine failure. "In regard to weight," *The Motor Cycle* concluded, "we can personally testify that we have carried the machine up two flights of stairs without undue fatigue."



A 1 1/4hp Voisin engine

hung off the back of the French Fly-Voisin, powering a disc wheel via a spring-loaded friction device. Compressing the spring allowed the bike to freewheel. Claimed top speed was 16mph.

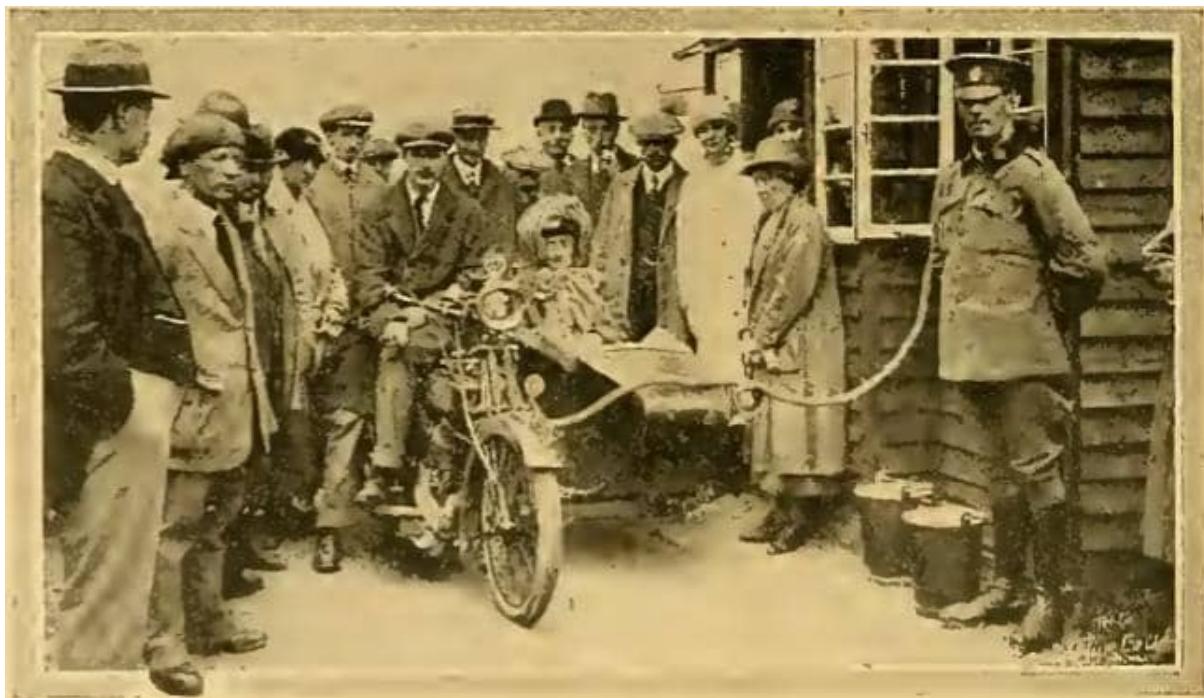
"Sir,—The time is approaching when motorists must become desperadoes of the most savage type. On a recent Sunday, feeling energetic, I arose from the depths of an armchair and sought my motor cycle—a 7-9 hp Indian sidecar. I departed to where the only girl in the world lives (Don't get excited, this is not a love story), and together we lobbed out into the country. The roads were good, the weather was bon, the 'bus was going well, and she is a pretty girl. Yet I did not enjoy the drive. Why not? Now I will tell you. I first met them when I hit the Reigate Road at Sutton. I modestly sounded my Klaxon. Did they move? Not much: they remained four abreast. With extreme difficulty, I passed them. I did not hinder them. I realised they were cads, but I thought they were exceptions. Why did not I go home then? They were on Banstead Downs in their thousands; they were all over Reigate; they went round corners without looking round, without putting their hands out, without hands on handle-bars, and as far as I could see, without brains. Who were they? I will leave it to your readers to arrive at the solution of this very difficult problem. Can nothing be done to remove this danger to motorists from the English roads anyway?

Just about adenough, Sidcup."

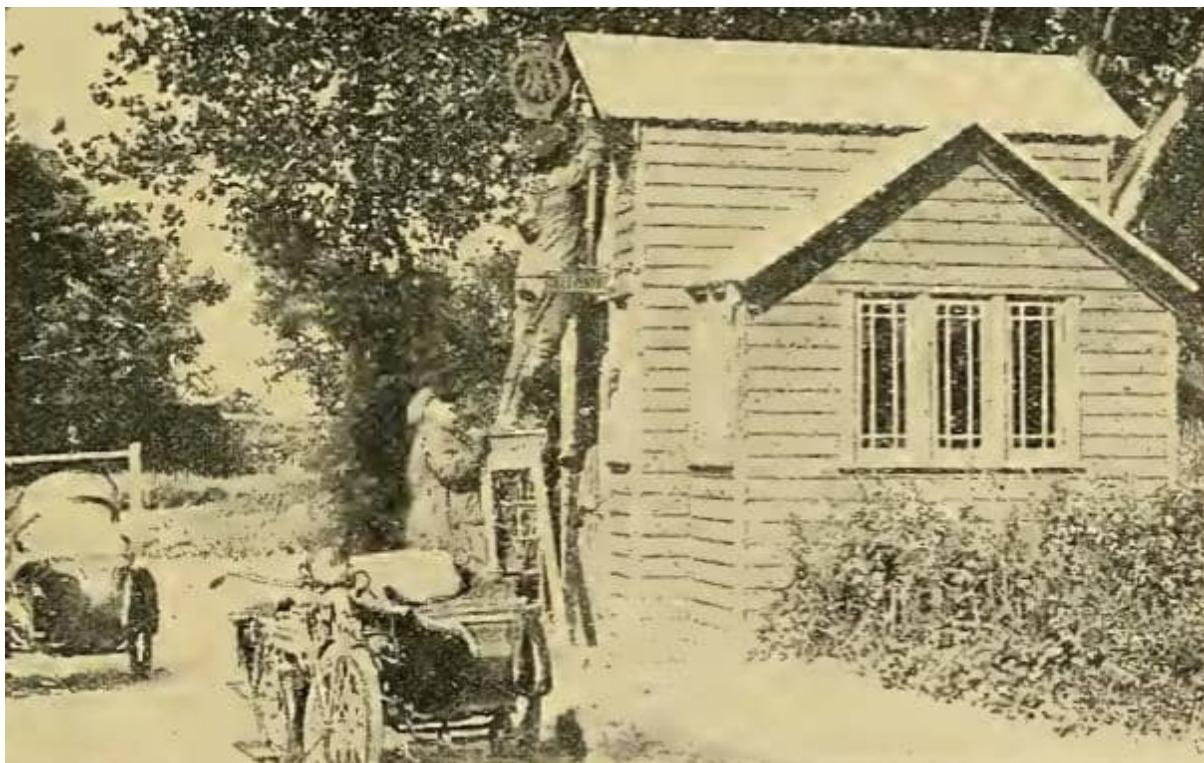
"AN UP-TO-DATE MOTOR SPIRIT bulk storage station has been installed by the AA at Aldermaston, on the Bath Road between Reading and Newbury. This is the first of its kind, following American lines, which has been erected in Great Britain, and is the first of a series to be erected by the AA throughout the country. The AA does not make any profit on the spirit sold, but allows their local agent to use the installation for selling his own spirit. The installation also includes a telephone, a delivery pump, and the New Pelapone engine and electric generating set, delivering 'free air' through an air compressor, so that members' tyres may be blown up while the tank is being filled. Water is also laid on for filling radiators. At the present it is only proposed to run a day service with an AA road patrol in charge, but if the service proves successful, as is anticipated, day and night service will be run. At the moment only benzole conforming to the AA standard is supplied. The service, of course, is available to members only."



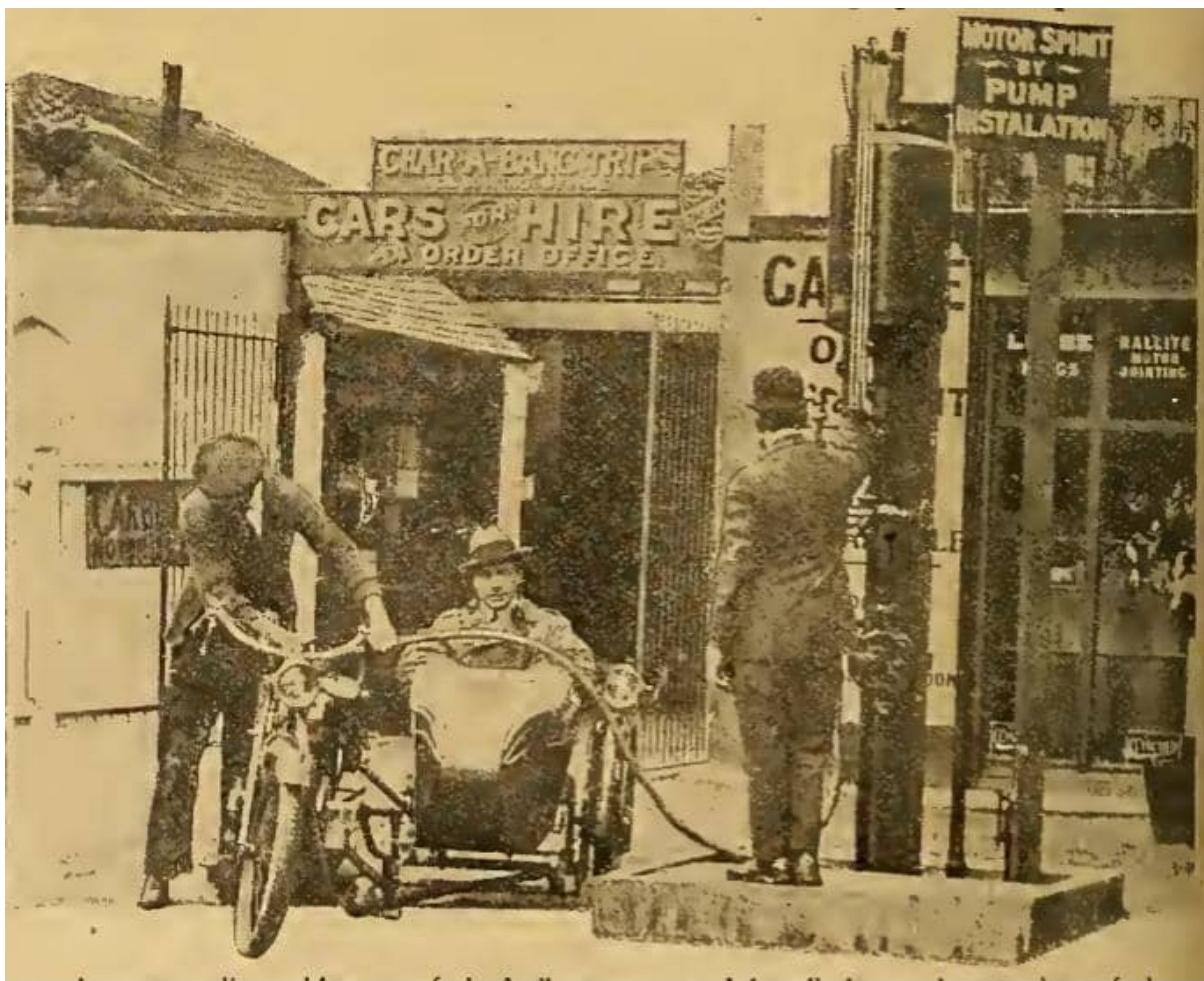
"A Matchless outfit outside the AA roadside motor fuel supply station at Aldermaston."



"Fuel supply stations are still few and far between in this country, although in America and on the Continent they are commonly met with. The photograph shows an Enfield outfit at the benzole supply station at Coombe Hill, on the Tewkesbury-Cheltenham road, the second to be installed by the AA."



"Third AA roadside benzole filling station: A road guide is seen fixing up the sign on the filling station, which was recently opened at the Bramham cross roads (Leeds-York and Great North Roads), a busy spot in Yorkshire."



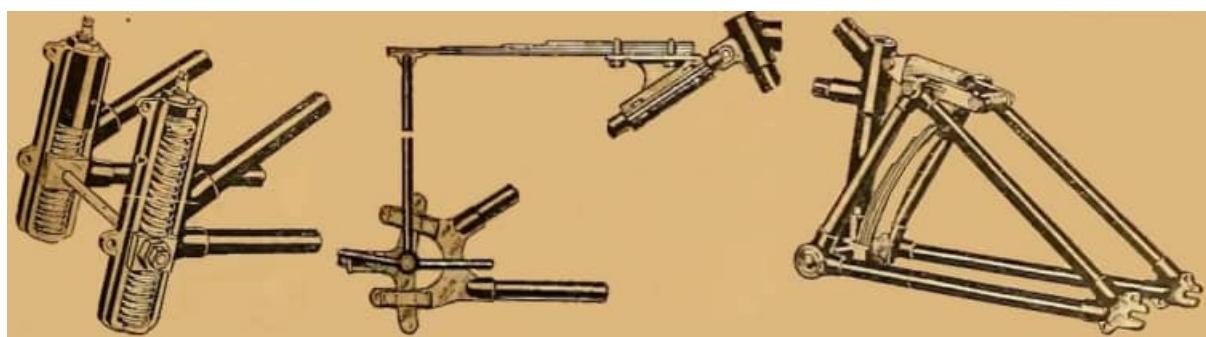
"A motor cyclist making use of the bulk storage petrol installation at the premises of the Brixton Motor Works, Ltd, 289a-291, Brixton Road, London, SW9. Motor cycles are driven into the forecourt by one gateway and fill up with petrol, passing out through another gate."

"A RECORD NUMBER OF MEMBERS sat down on the evening of Saturday last [March 13th] at the Old Ship Hotel, Brighton, Brighton, whither it has long been the custom of the MCC to hold its opening run, no fewer than 155 being present...The dinner was followed by a short speech by Lt-Col Charles Jarrott, OBE, who proposed the health of the club, and referred to its sporting members. He was glad to see such a fine attendance, and said that he thought if all this year's competitions were supported so well as the opening run, 1920 would be a bumper year. He congratulated Mr WH Wells on the arrangements for the organisation of the dinner. Mr R Head (chairman), in reply...especially congratulated those who had turned up on motor bicycles. The Jarrott cup this year would be something to be earned, the entries were already a record, and it was anticipated there would be about 200. Other events this year would be the Edinburgh run, the team trials for The Motor Cycle challenge cup, and a race meeting at Brooklands. The President then presented the medals won in the Exeter run, and thereafter followed an excellent musical entertainment...Mr RDF Paul proposed the health of the President, who, in reply, contrasted the number of those present with the attendance in 1902—the occasion of the club's first opening run, when, as Mr Candler, the only member present who took part in it had told him, only eight or nine members had arrived, and even then only after a continual struggle against adverse circumstances. Mr Jarrott said a few words about petrol prices and taxation. The authorities, he remarked, were anxious enough to ask motorists to come and help them when the country was in difficulties, but now they seemed to infer that motorists were jolly lucky

to be allowed to use the roads at all. Mr Wells...hoped the MCC would get back The Motor Cycle challenge cup this year in the team prize. The journey back to town was made independently in breezy and cold weather."

"THE MOTTO OF A CERTAIN American motor cycle club is 'Neat Riders'. British clubs also would help the movement by encouraging their members to wear neat riding attire."

"WITH THE OBJECT OF COMPELLING the South Metropolitan Gas Co to produce 'the largest possible amount of benzole or other motor spirit by the gasification of coal', a petition has been presented to the House of Lords against the Bill which the company is promoting for the purpose of altering the existing method of charges to consumers. The petitioners comprise the Automobile Association and Motor Union, the Auto Cycle Union, the Commercial Motor Users' Association, the Cycle and Motor Cycle Manufacturers and Traders Union, the Royal Automobile Club, and the Society of Motor Manufacturers and Traders. It is submitted that gas undertakings can produce much larger quantities of benzole and other by-products, and that in the national interests of the conservation of coal and the maintenance of key industries they should be required by law to do so. It is estimated that over 30,000,000 gallons of motor fuel could be produced from the existing gasworks of the country if 'scrubbing' were universally adopted in the manufacture of gas. This home supply would be of material assistance."

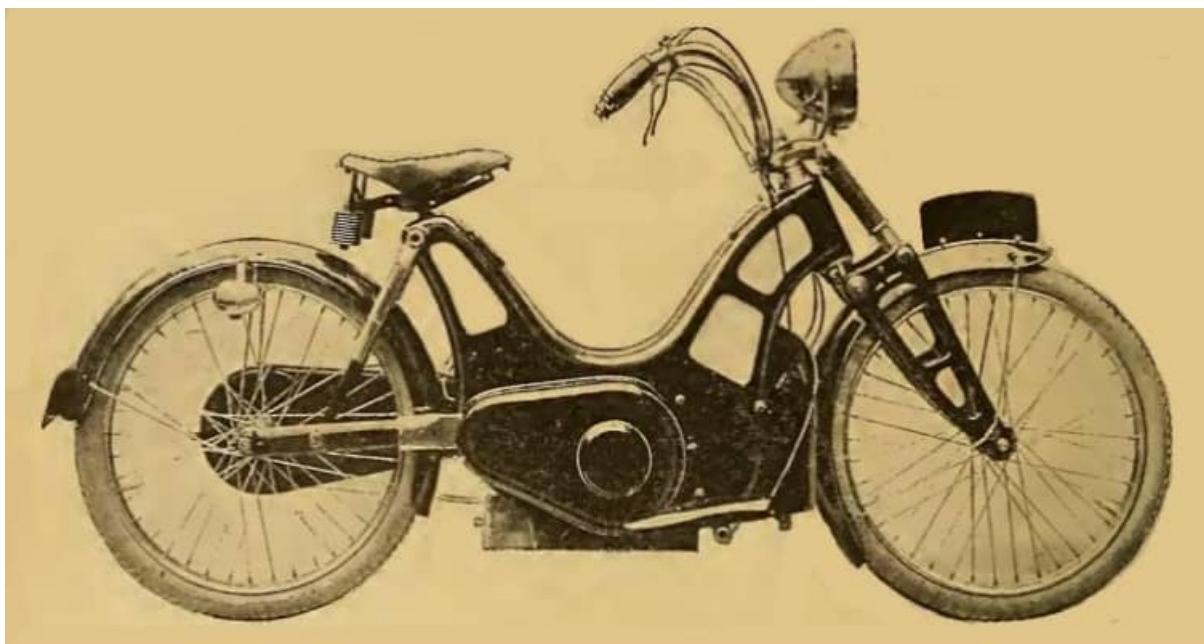


The motor cycle reported: "Every month we receive many designs of inventions relating to spring frames, but only the very small minority reveal any Promise." (From left) An enthusiast named Buckley came up with what would be known as plunger suspension; the Auto Improvement Co offered a leaf-spring conversion for rigid frames; Mr Tebbutt of Coventry favoured what would now call cantilever suspension, with coil and leaf springs.

"PEARSON'S WEEKLY IS OFFERING a 3½hp Rudge-Multi as a prize in a new competition. PW readers are invited to make a sentence, the words commencing with the letters J-O-Y-R-I-D-E."

"PUBLIC SCHOOLS MCC: AT THE recent annual general meeting, it was decided to allow schoolboys to join the club at a subscription of 10s 6d, without entrance fee, and to add to the list of public schools Blundells, Eastbourne, Cooper's Hill, Oundle, and Cranleigh."

CYRIL PULLIN, WHO WON THE 1914 Senior TT on a Rudge, came up with a state-of-the-art utility bike "which, whilst possessing a pleasing and compact appearance, is at the same time simple to manage, comfortable to handle, and clean to ride on all kinds of roads by riders of either sex". Its 216c 3hp two-stroke engine drove via a two speed box to a fully enclosed rear chain. The Pullin also featured a pressed-steel frame and forks, swinging-arm rear suspension, combined magneto and lighting generator in the flywheel, auto-lube, and QD interchangeable wheels.

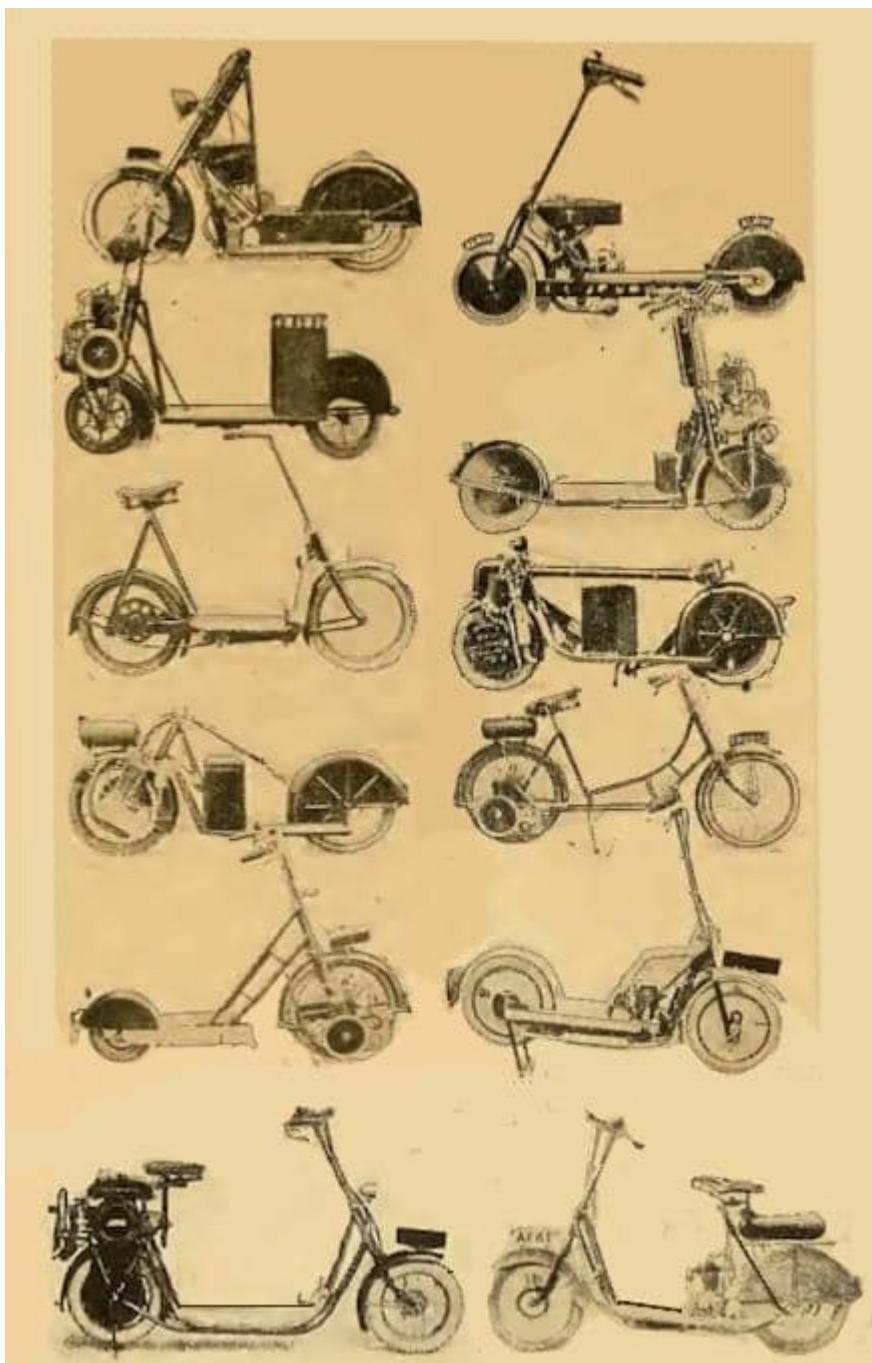


"The 216cc Pullin, a machine of striking and original design."

THE MOTOR CYCLE'S BUYER'S GUIDE listed every marque on the British market. Since the previous Buyer's Guide in 1915 the number of firms producing motor cycles had risen from 85 to 108, between them they offered 203 models: "ABC, Abingdon, King Dick, Acme, AJS, Akkens, Alecto, Alldays-Allon, Ariel, Armis, Bat, Beardmore Precision, Blackburne, Bown-Villiers, Bradbury, British Standard, Brough, BSA, Calthorpe, Campion, Carfield, Cedos, Chater-Lea, Cleveland, Clyno, CMM, Connaught, Corona, Cotton, Coulson B, Coventry Eagle, Diamond, Dot, Douglas, Dreadnought, Dunelt, Duzmo, Edmund, Endurance, Enfield, Excelsior British, Excelsior American, FN, Francis-Barnett, Gaby, Harley-Davidson, Hazlewood, HB, Henderson, Hobart, Hoskison, Humber, Indian, Invicta, Ivy, Ixion, James, JES, Kingsbury, Lea-Francis, Levis, Lincoln-Elk, LMC, Martinsyde-Newman, Matchless, Metro-Tyler, Militor, Monopole, Mountaineer, New Comet, New Hudson, New Imperial, New Scale, Norton, NUT, OK Union, Olympic, Omega, Overseas, Paragon, P&M, P&S, Pullin, Quadrant, Radco, Raleigh, Ray, Reading Standard, Regent, Revere, Rex, Romper, Rover, Royal Ruby, Rudge, Saltley, Scott, Sheffield-Henderson, Sparkbrook, Sunbeam, Sun-Vitesse, Triumph, Velocette, Verus, Victoria, Vindec, Viper, Wolf, Wooler, Wilkin, Williamson and Zenith.

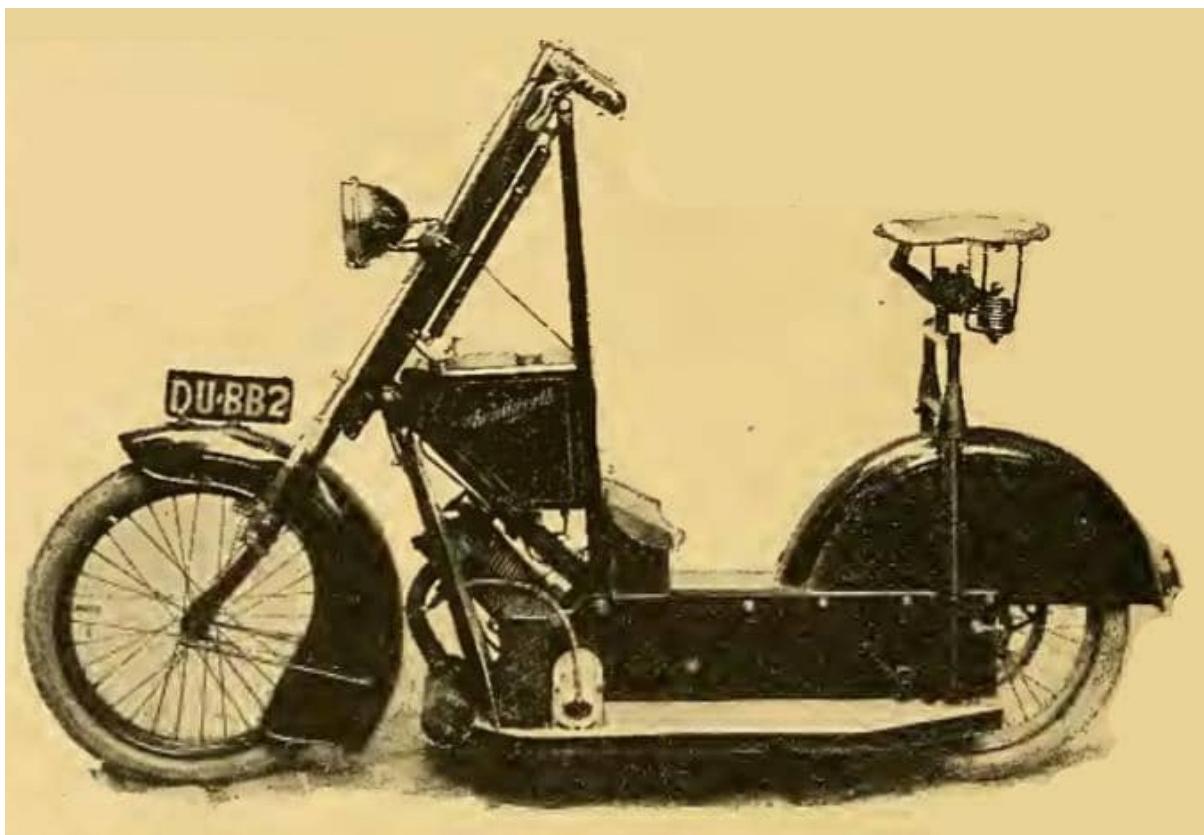


Motor cycles from A to Z: ABC and Zenith.

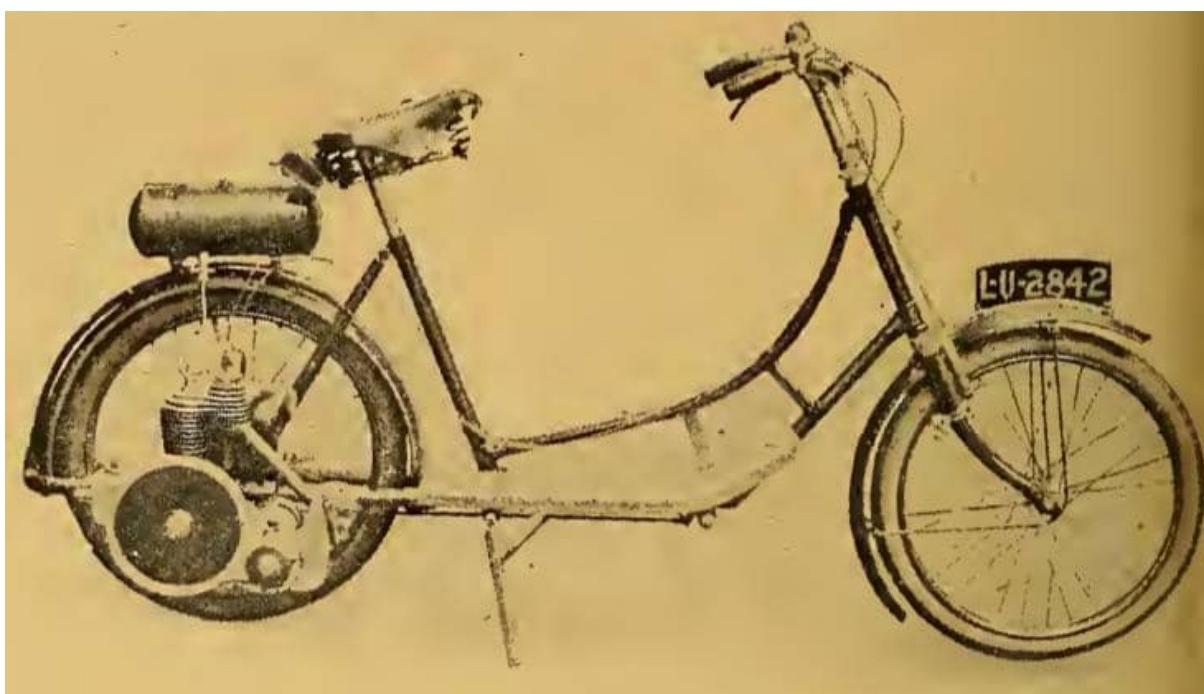


There were twelve

contenders for British scooter sales: Alwin, Autoglider, Autoped, Autosco, Kingsbury, Kenilworth, Macklum, Marseel, Mobile Pup, Silva, Skootamota and Whippet.

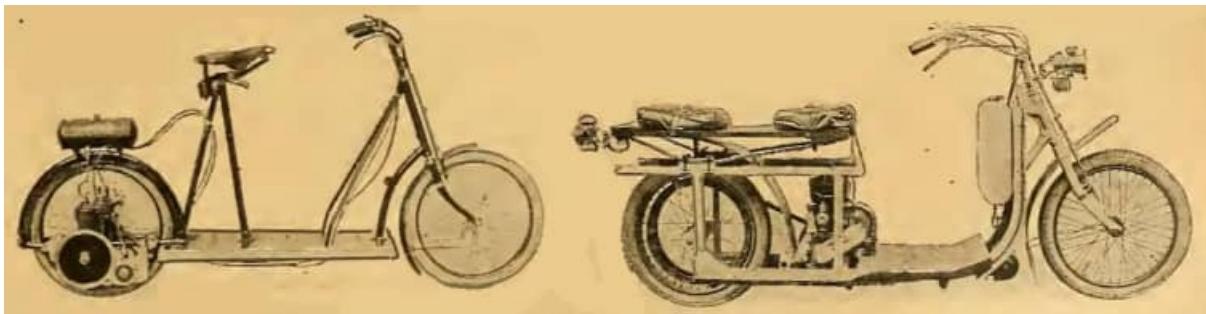


"Owners of some of the better known seat type miniatures frequently use them for journeys such as are undertaken on a fully fledged motor cycle. The Kenilworth Miniature is a development of the scooter of the same name, but provided with a doubly sprung seat and electric light installation...two ladies recently rode 145 miles from Coventry to Brighton."



"Although described as a scooter, the Autosco is more a motor cycle than some machines of the miniature class, and illustrates the tendency for makers of such machines to fit larger wheels... The rear wheel is an Auto-wheel unit, while the front uses the same 20x1¾."

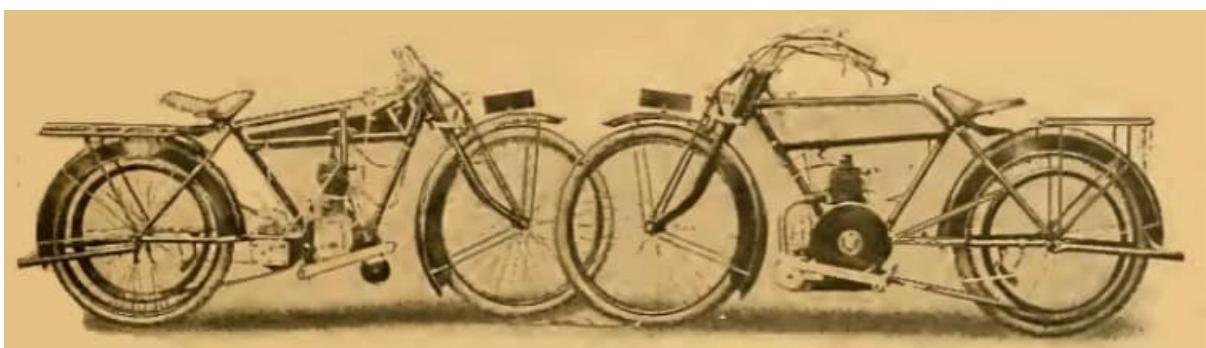
NEW BIKES WERE COMING onto the market all the time, many of them lightweights and scooters using proprietary parts.



The Willow used a Wall-Autowheel; although it was marketed as a scooter the Blue 'Un reckoned it was actually a miniature motor cycle. Frame tubes were bolted to "a stout ash footboard"; the mudguards were made of plywood. It was made by the Willow Autocycle Co, Willow Works, Willow Street, London SW1. Right: RL Jackson had been in the motor industry since 1896. His two-wheeler was described as an open-framed tandem motor cycle; to modern eyes it has the lines of a scooter; it was designed for short urban trips which is traditional scooter territory—the border between bikes and scooters was as blurry then as it is now. Power for the Jackson came from a 2½hp Union two-stroke; there were plans for a sprung fork and a two-speed transmission.

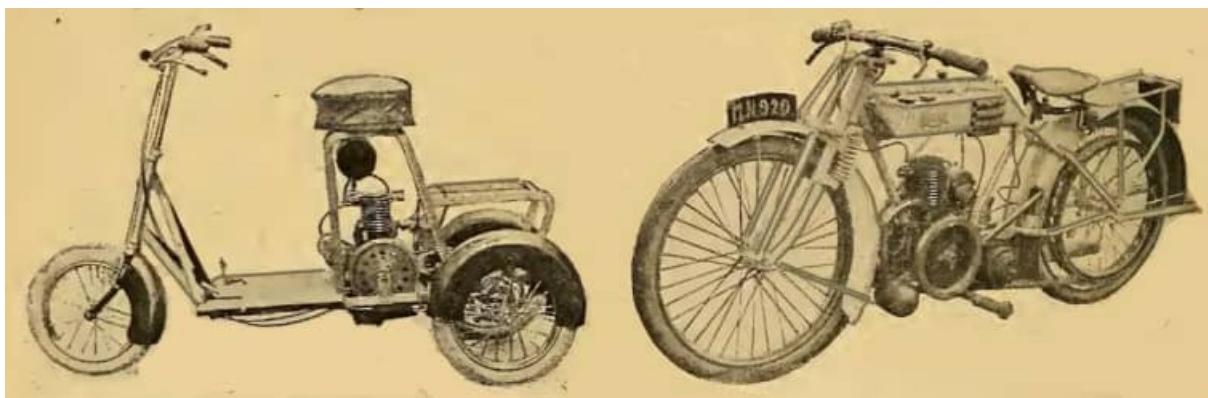


Briggs & Stratton acquired the US manufacturing rights for the Smith Motor Wheel (which was the British Wall Autowheel made under licence by AO Smith Corporation of Milwaukee). As well as powering bicycles (in this case a Pierce) the 1.5hp engine was used in the Briggs & Stratton scooter.



Witall Garage of Lewisham High Road, London SE8, came up with a brace of lightweights. The Witall Model A, "a sporting little machine" relied on a 269cc TDC lump; "the TT handle-bars no doubt will tempt the younger class of enthusiast to a large degree". The Model B had a two-

stroke Arden engine. Both models had two-speed Roc gearboxes; the Model A had a one-gallon fuel tank; the B carried 1½ gallons.



Kingston, Surrey was home to the Abbott Ford trike, which was designed for light deliveries. Power came courtesy of a 2½hp two-stroke fed from a half-gallon petrol tank. "Attached to the seat support is a skeleton frame for the accommodation of a delivery box." A long-winded description of a rack. Right: "Just as one associates Epsom Downs with racehorses, so does a motor cycle produced in the Isle of Man automatically become a T mount. It is therefore perhaps not surprising that the new Aurora motor cycle, made by Aurora Motors, of Mona Terrace, Douglas, IOM, is a sporting little mount, which should make a strong appeal to the youth of Manxland." It was powered by a 318cc Dalm two-stroke. "The designer of the Aurora, Mr J Wilson Oates, succeeded last week in climbing to the summit of Snaefell mountain (2,034 feet). This, he believes, is the first time a lightweight has succeeded in climbing the mountain." *Oates' story is told in full in the excellent book by my old comrade Bill Snelling, Aurora to Ariel: The Motorcycling Life of J Graham Oates. It's packed with ripping yarns of Oates' adventures as a WW1 DR, and successful competitor in the ACU Six Days Trials and TT—not to mention the first coast-to-coast ride across Canada. Well worth tracking down, and it's available on Kindle.*



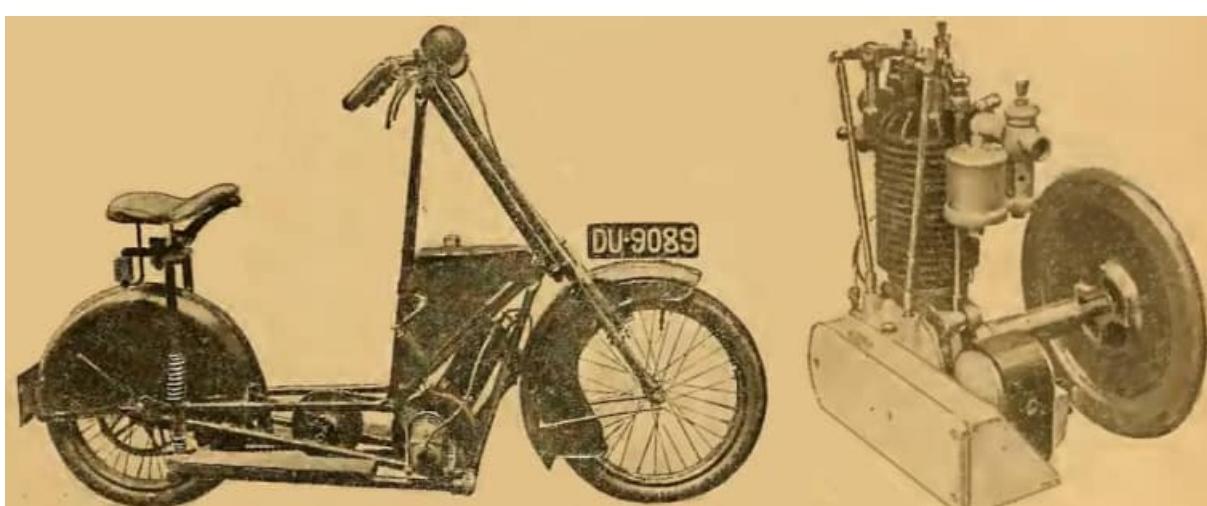
DAD AND TELE

SUMMIT SNAEFELL.

GOOD EIGHT. 1919.

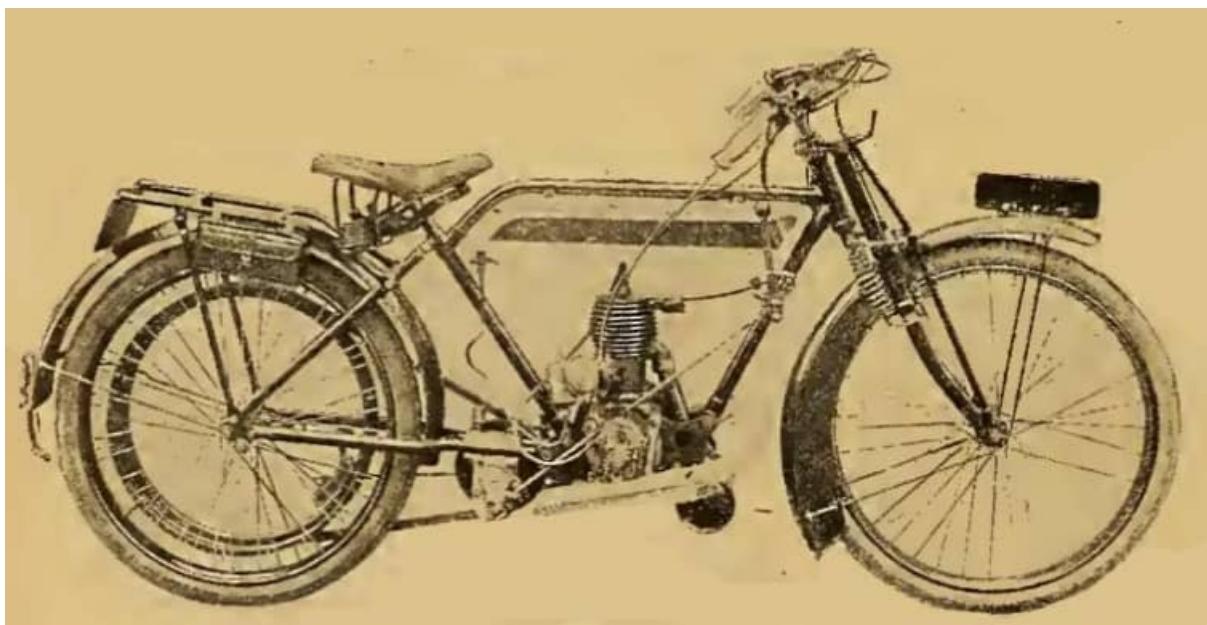
FIRST MOTORCYCLE TO REACH

Graham Oates with his dad John and his Aurora at the top of Snaefell (the pic is one of many excellent images in the Bill Snelling book).

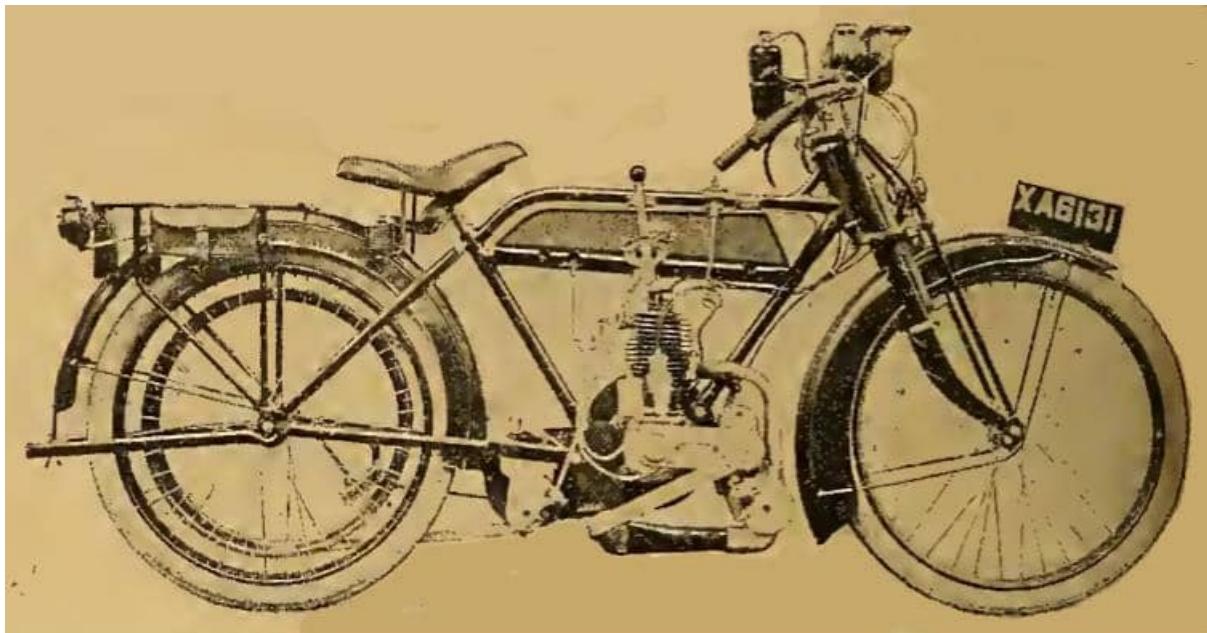


The GSC Autocyclette was designed by Captain Smith Clarke "who has been responsible for the

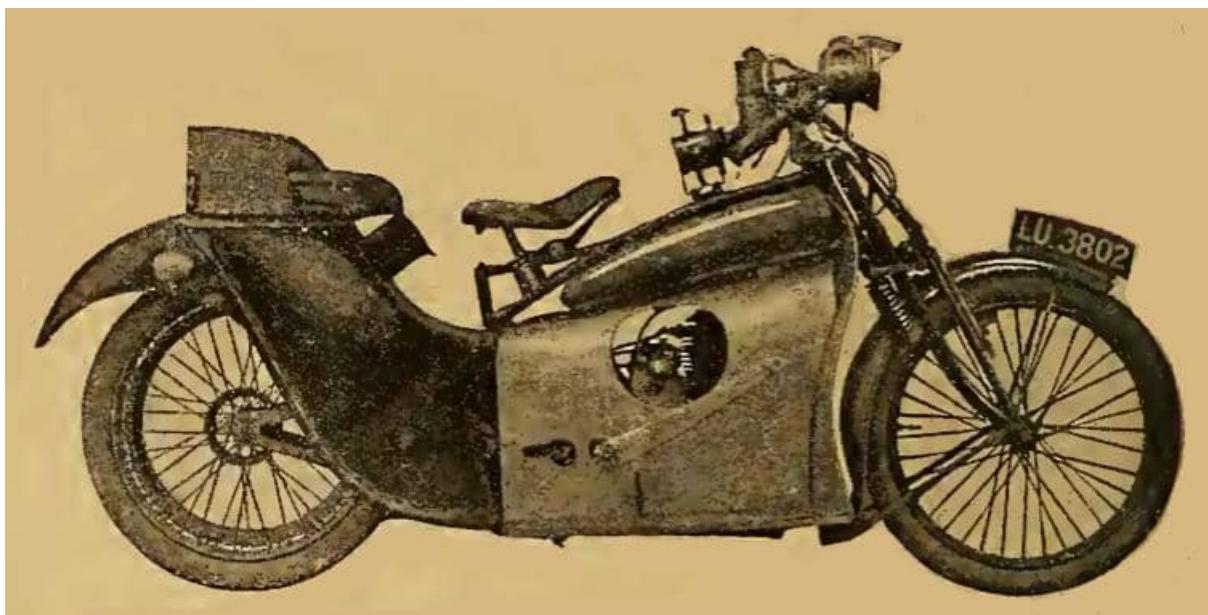
layout of several well-known scooters". It was powered by a single-speed 142cc, 1½hp ohv John engine, produced specifically for scooters by TG John Ltd of Coventry.



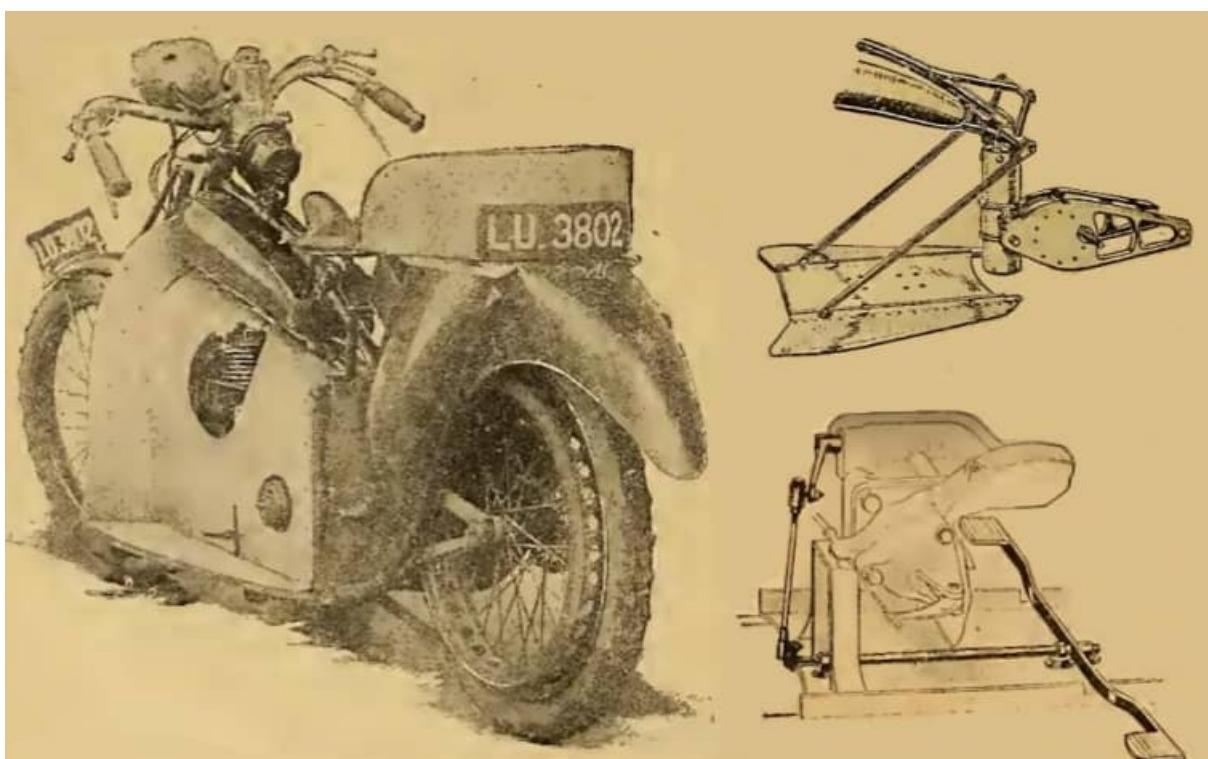
Messrs Motors of Hampstead built a lightweight round a two-stroke TDC engine and Albion two-speed box with an EIC mag and Senspray carb with Druid forks and semi-TT bars. However it was not seen on British roads, being built for export to Italy. The Blue 'Un noted: "No doubt on account of the forward riding position provided, the two-speed gear control is mounted on the front down tube of the frame, where it will be within convenient reach."



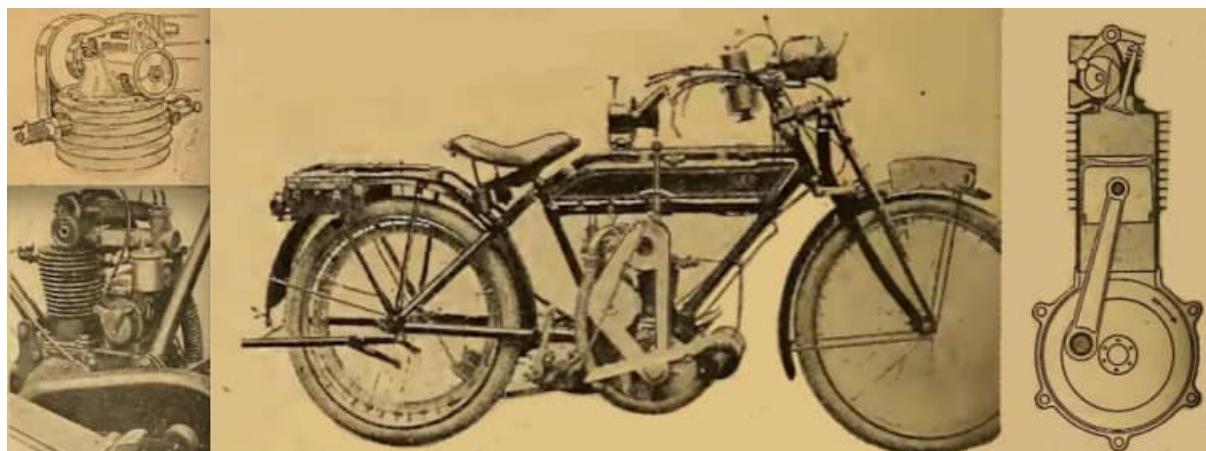
Maudes Motor Mart added to its stock with a model of its own: the Portland, powered by a 2¾hp, 269cc Arden two-stroke driving through a two-speed Albion box. It also came with sprung footboards, Saxon forks, a pump and a roll of tools.



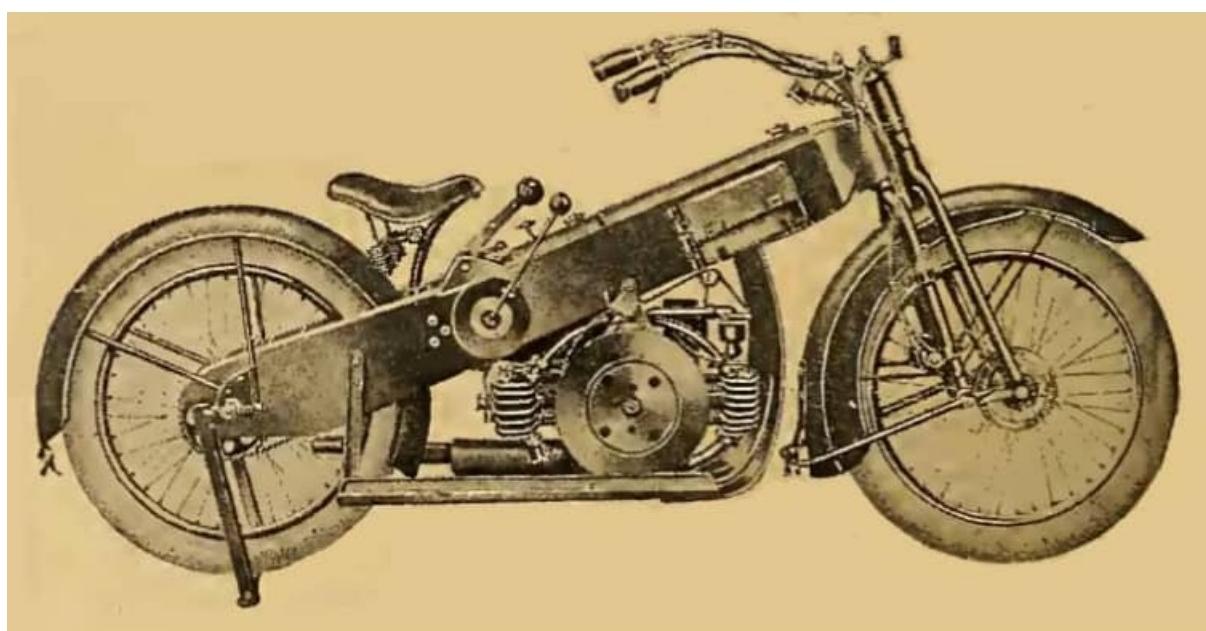
"An experimental model [has been] designed by Mr Arthur E Hagg, 151, Audley Road, Hendon, London, NW, who has held the post of assistant chief designer to the Aircraft Manufacturing Co, of Hendon, where this machine was constructed. The object of the designer has been to provide a machine equipped with an engine of adequate horse-power to carry two persons and luggage in comfort without reducing the handiness of the machine for use as a solo mount." The prototype was powered by a 3½hp, 350cc Precision two-stroke with a Burman box but Hagg planned to fit a unit-construction three-speed 8hp ohv vertical twin with enclosed chain drive.



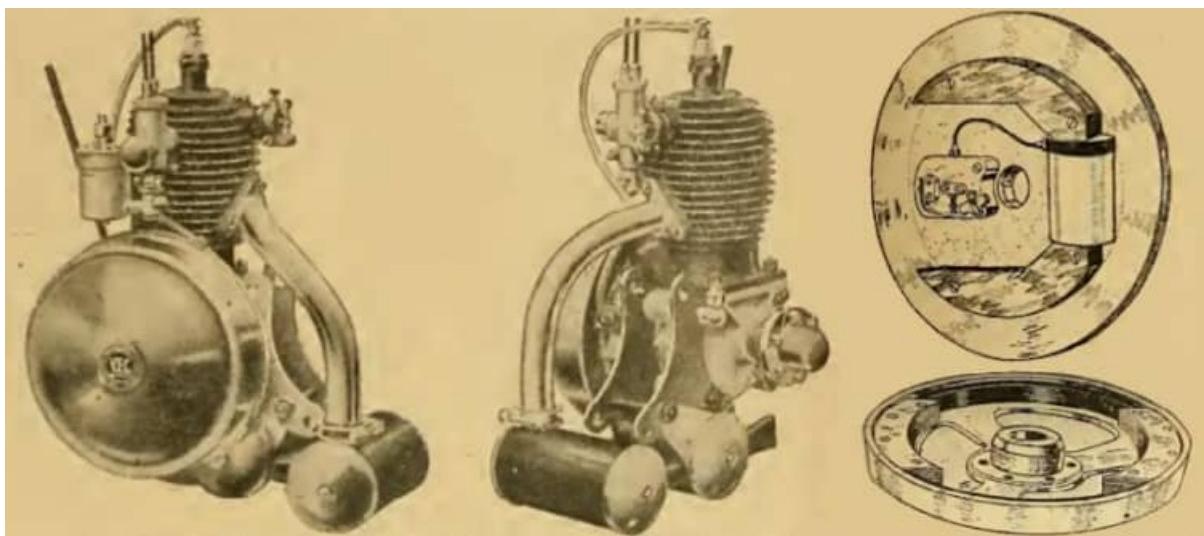
"A rear view, showing how effectively the mudguarding has been carried out. (Top right) Rear suspension system and undershield; observe the unique frame construction. (bottom right) The foot-operated gear control."



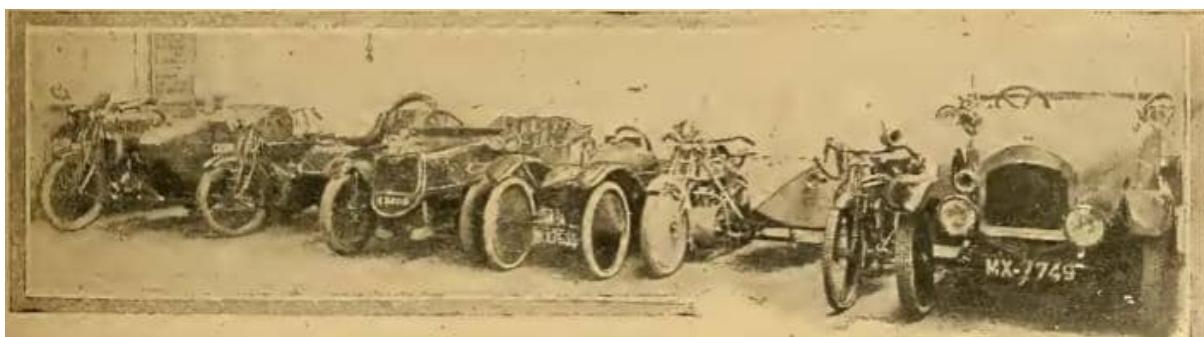
The Gri (named for its designer, GR Inshaw of Glasgow) was a 3hp four-stroke single with only one valve: "The flow of gases is controlled by a rotary distribution valve in conjunction with a single overhead poppet valve." Top left: "The poppet valve is operated through a rocker from a cam on the ball bearing rotary valve." Bottom left: "A detachable head, screwed into the cylinder, houses the chain-driven rotary valve and cam." Centre: "The Gri 3hp motor cycle, which incorporates an unusual type of four-stroke power unit." Right: "Section of the Gri engine, showing valve gear; the exhaust stroke is nearing completion."



"Having a girder frame constructed of V-section pressed steel, the Mass motor cycle is interesting as showing the trend of design in Germany. The transmission throughout is entirely enclosed by the frame, and the drive is through two internal expanding clutches. A 7½hp flat twin forms the power unit, the flywheel of which is provided with four blades to assist cooling. A handle is fitted in lieu of a kick starter, and engages on the end of the camshaft on the near side of the machine. This design is illustrated as a matter of general interest, as showing the trend of thought in the land of our late enemy."



"The Villiers Mark IV two-stroke engine with flywheel magneto. The latter is completely enclosed and no rotating parts are visible. The timing lever will be noticed projecting from the back of the magneto. (Right, top) All the electrical parts are secured on an aluminium back plate. It will be noticed that the magnetic circuit consists of laminations throughout. (Right, bottom) The bronze flywheel, which incorporates the cam and contains the magnets, which are clamped in position by the laminated pole shoes." The first motor cycle flywheel mag appeared in 1904 but didn't catch on. This device made entirely in-house, had a great future. The Motor Cycle reported: "On actual road tests, machines to which the flywheel magneto is fitted have proved themselves to be considerably easier to start, and infinitely more controllable than those equipped with the ordinary type of magneto.



A selection of motor vehicles used by the JAP works for testing JAP engines. Reading from left to right : A 1920 Peace Model Matchless, a War Model Matchless, a four-seater Morgan with an air-cooled JAP engine, an AV JAP-engined monocar, an up-to-date Zenith with a JAP engine, a JAP-engined Diamond, and an experimental model light car, in which a four-cylinder water-cooled engine is being tested.

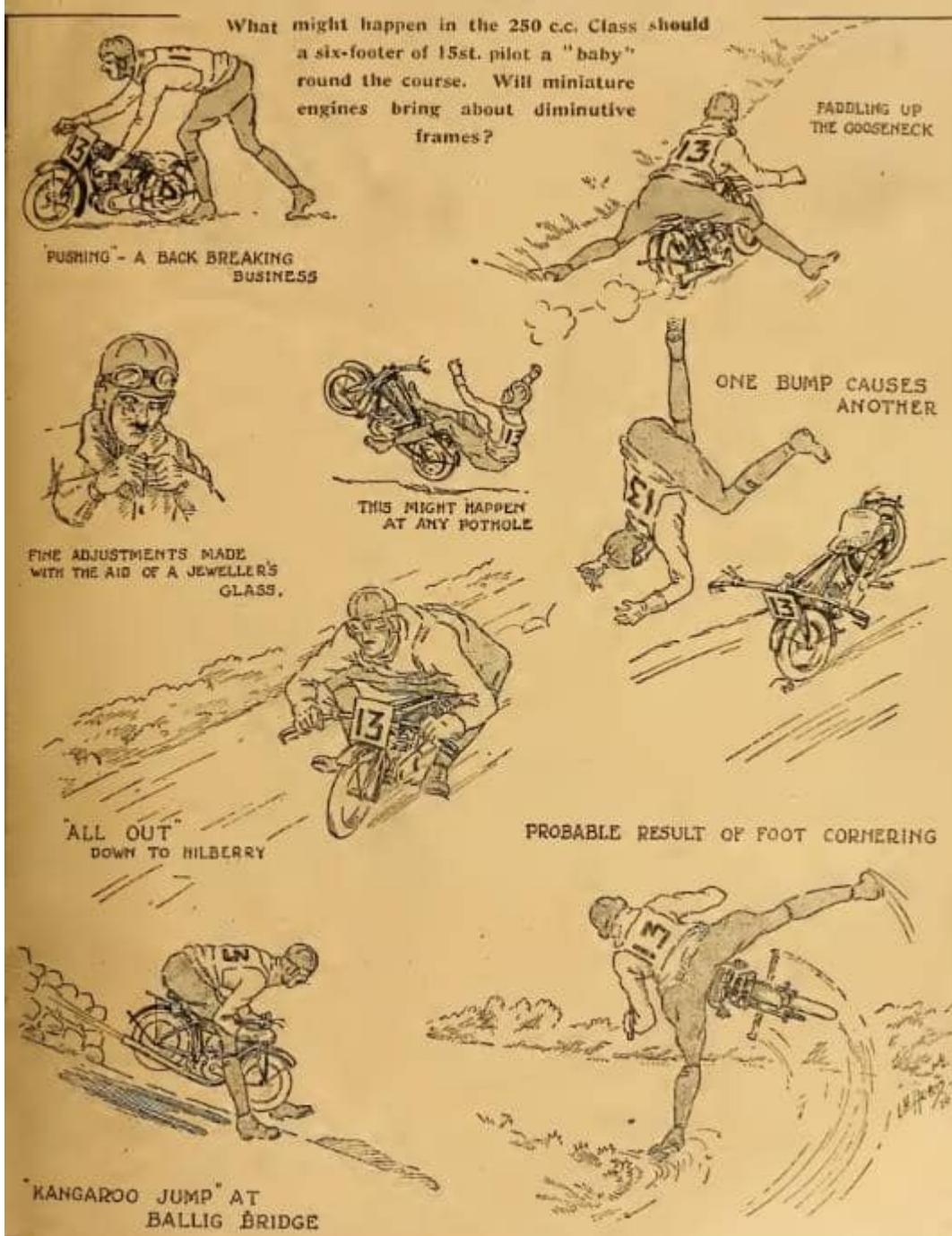
IT SEEMS THAT THE FIRST British one-make club was dedicated to an American motor cycle. "Harley-Davidson MCC: A club for Harley-Davidson riders is about to be formed, which will cater generally for riders of these machines. The idea is to commemorate the services rendered by HD riders to wounded soldiers and sailors during the war. Club runs, competitions, and social functions will be organised."

"WD OPEN LORRIES, PACKED with war-worn motor cycles, are to be seen daily on the Dover Road. Some are packed flat on each other; others are dumped in, front wheel foremost, or with the wheels upwards. It is said the machines are arriving via Richborough from the French dumps near Calais."



"In pre-war days there was much confusion between CT Newsome, of the Rover Co, and WF Newsome, of the Triumph Co. Both were leading competition men who early joined HM Forces when the great call came. Now they are back with their respective firms, and were, oddly enough, encountered together by a Motor Cycle photographer."

1920 T.T. POSSIBILITIES.



"THE AUTO CYCLE UNION TO AWARD a special prize in future Tourist Trophy contests to the competitor displaying the greatest pluck and endurance in the race. This prize will be known as the Nisbet award, and will commemorate the late Mr JR Nisbet, chairman of the Auto Cycle Union from 1914 to the time of his death last summer. The classic motor cycle road race, held annually in the Isle of Man, certainly provides scope for the exercise of the finest sporting instincts, and it is well that these should be recognised by a special prize given in memory of one who was an example of the best type of British sportsman. At the same time the ACU has been wise to rule that any competitor who continues in the race while suffering from injuries will not qualify for the new award."



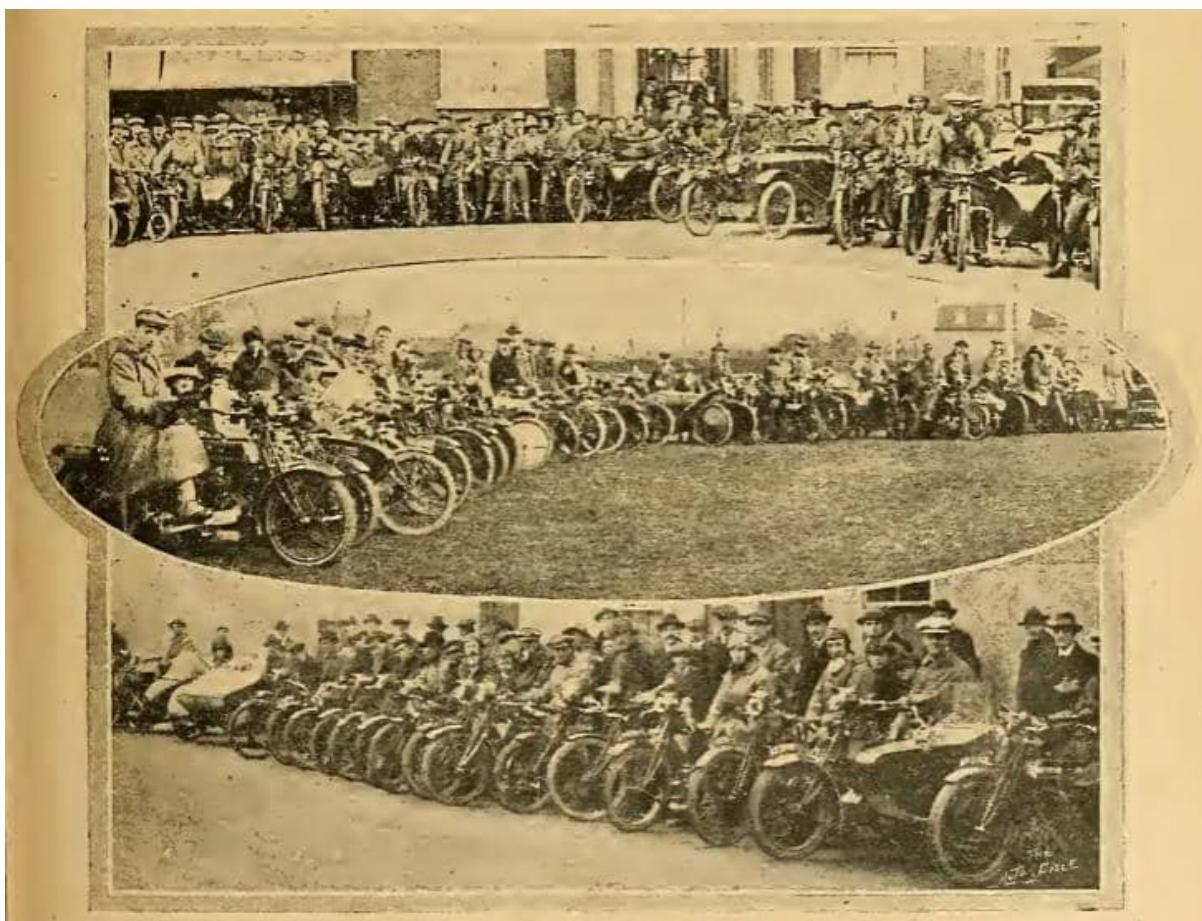
"Quite

recently we had the opportunity of making a complete circuit of the TT course, with the exception of the short cut in Ramsey to the Snaefell Road, which is not yet open. For the most part we found the roads in quite good condition and pleasantly free from the eternal potholes one encounters everywhere in England, the reason being, of course, that no lorries are to be found on the Island to hammer the roads which, on the average, are superior to those at home...the TT course is, with the exception of a few short stretches, in a safe and satisfactory condition for the forthcoming race, and it is evident that these rough places will be attended to by the Manx authorities before the course is opened for practice."

"SIR,—MAY I, THROUGH YOUR COLUMNS, warn those readers of *The Motor Cycle* who anticipate using the main roads to the North-west during the coming [Easter] holiday carefully to avoid the Edgware Road between Cricklewood and Edgware. Between these two points the road is composed of muddy gravel, with a wood block centre upon which, after rain, the tramlines float as on a raft. It is practically impossible for a solo machine to negotiate this stretch of road after dark, unless its rider is thoroughly acquainted with the few places where the lines may be crossed with a minimum of danger. I should mention that in places, particularly in the region of the 'Welsh Harp', the road has sunk so considerably that the trams enjoy (yes, they do!) a permanent (?) way quite six inches higher than the road. To finish, I walked from Cricklewood to Hendon a few days ago, and in the space of one mile picked up the following

articles from the road: One car crank case inspection plate, one leather drive for car lighting dynamo, and one bent Douglas footrest, from which you may draw your own conclusions. Perhaps had I continued further I could have obtained sufficient parts to assemble a complete 'bus.'

Stanley J Band



"The crowds that assembled at the opening run of the Kidderminster MCC (top), Bedford & DMCC (centre), and the Hull MCC (bottom), augur well for the future of these 'live' clubs. All classes of vehicles were represented, from the scooter to the four-wheeled cycle car."



"Members of the Sheffield and Hallamshire MCC at the start of their opening competition."



"Petrol has

reached an exorbitant price. We may expect to see motor cyclists armed with syringes for collecting spilt spirit in the near future."



"One of the charms of the motor cycle is its ability to go anywhere—even down to the waters' edge, where al-fresco meats may be taken."

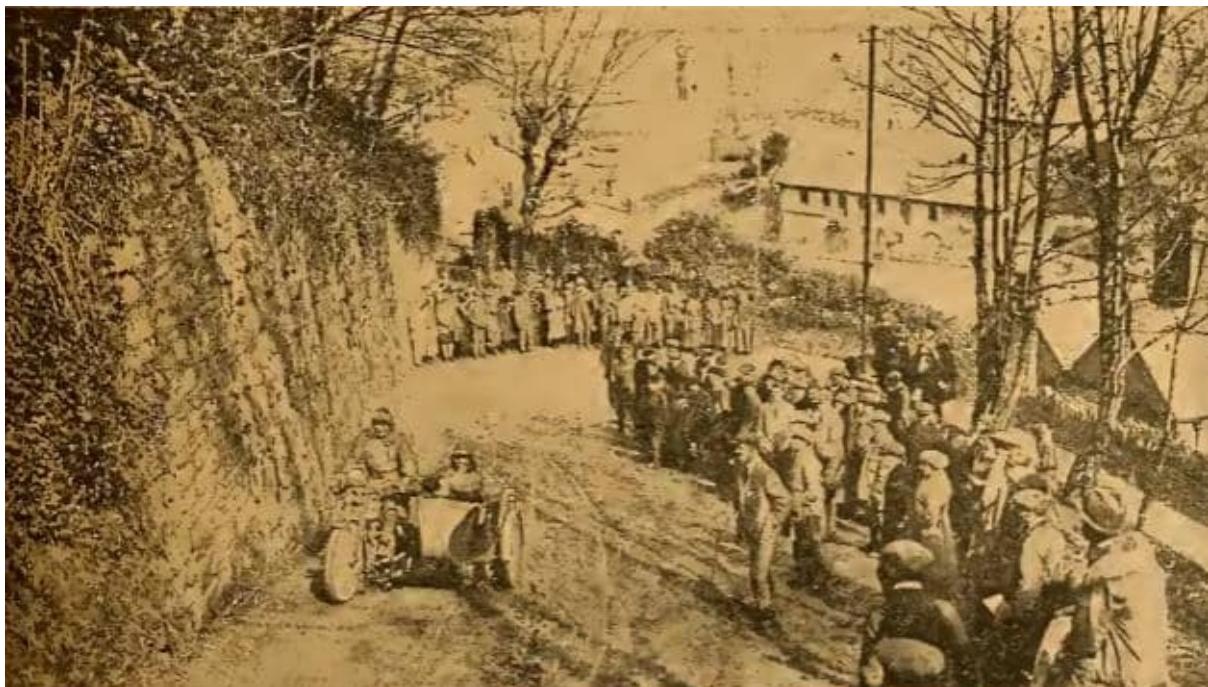


"The ever extending scope and popularity of the motor cycle is best illustrated in small out-of-the-way towns where one might expect to find the sale of motor cycles achieved by catalogue and enamelled signs. The photograph depicts the depot of Mr W Dickie, of Turriff, a Scotch town of approximately 2,340 inhabitants, and shows some of the new machines in his stock a few weeks ago Among the machines In the group an; a Bat, three Sunbeams, BSA, and several Douglas mounts, from which it will be gathered that motor cyclists in Turriff are discriminating in their choice."

"A BOOM AMONGST ARTISANS: As I [Ixion] anticipated when the wages of a scavenger began to surpass those of a head draughtsman, the agencies are experiencing a very keen demand from artisan buyers. I rejoice that it is so. Motor cycles for the million are an integral part of an England fit for heroes to live in, and will make for more happiness than taking over a small holding with a small capital and a sublime ignorance of agriculture. It is interesting to note that the artisan novice is concentrating on one type of machine, and with comparatively few exceptions on half a dozen makes of that type. He will have next to nothing to do with anything but the three-speeded single-cylinder tourist machine of 500-600cc, and he is a shrewd judge of the best values in that line."

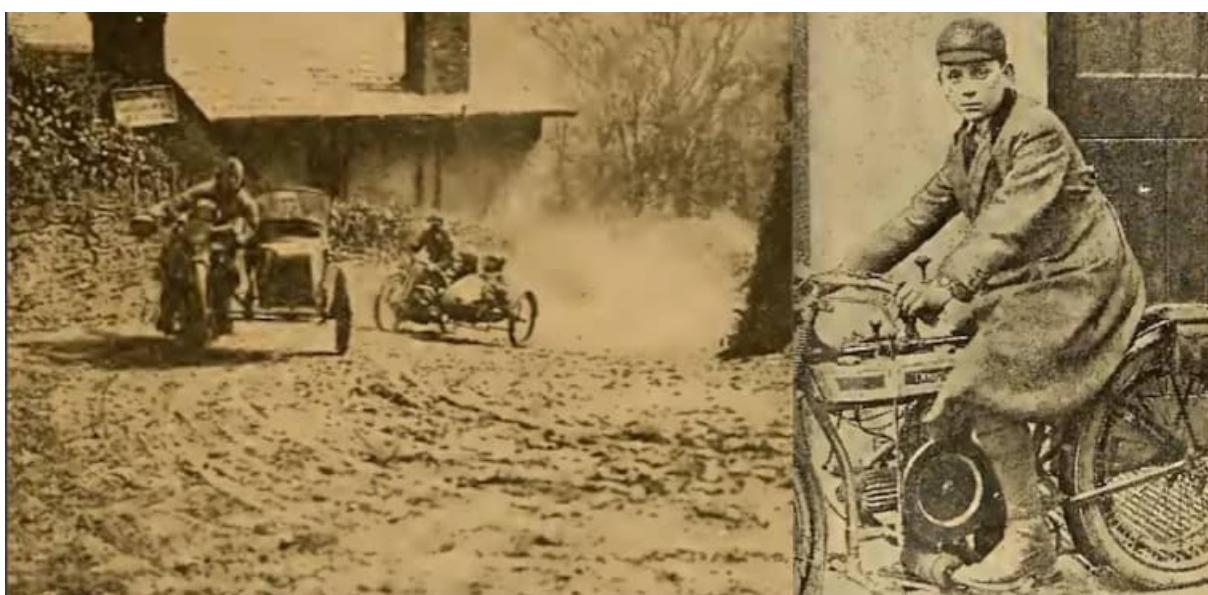


"THE WEATHER WAS KINDLY DISPOSED towards the 160-odd starters for the Motor Cycling Club's classic Easter event. Starting from Hounslow at one minute after midnight, the first competitor travelled in darkness through Maidenhead, Reading, Marlborough, and Devizes, the grey dawn breaking before Bridgwater (130 miles) was reached. Breakfast at the White Hart came as a welcome relief to the eye-weary riders, while the Bridgwater Motor Co attended to the wants of the machines. The road to Minehead was so wet as to raise the gloomiest forebodings. Of course, the tit-bit of the run commenced at Porlock village, and extended for 15 miles over the noted hill of that name, across Exmoor, and up Lynton Hill. The schedule speed for this difficult stretch was reduced to 15mph, and a non-stop run was demanded. For once in a way, Lynton Hill proved more difficult than Porlock, for the surface of the latter has wintered well, and is in better condition than we have known it. There was a crop of failures, of course, many due to rank bad driving. A number of sidecarists ascended minus passengers, but, generally, the solo riders performed well. If Porlock is long and severe, Lynton is steeper, and a great



"It is not only motor cyclists who are interested in the behaviour of machines on difficult portions of famous hills. The public, as will be observed from the illustration, evidently expected fun—and got it!—on the bottom corner of Lynton Hill as the London-Land's End competitors passed that way."

number of spectators gathered to see the competitors. Hugh Gibson (No 1), astride a two-stroke Clyno, led the way, and, hugging the dry patch beside the wall, made a splendid ascent. AJ Sproston (Lea-Francis) followed in equally good form. Garford (5hp Zenith) just got up by vigorous bumping on the saddle. Staunton (Triumph) did well, Gibson (4-5hp Zenith) doing better still. Chidley (Brough) got into a rut, kept going well round the corner, but stopped higher up. That veteran, WE Brough, charged the 1-in-3 section on the inside of the corner, and got to the steepest section when he had to assist his engine by footing. 'W Cooper and Son', on Lea-Francis and Douglas machines respectively, reached the difficult corner together; pater was too solicitous for his son, and failed on



"DH Noble (Reading Standard sidecar) and RS Aitken (Indian sidecar) negotiating Lynton. Note

the atrocious road surface. (Right): The youngest entrant in the London-Land's End event, CWW Cooper (the son of the well-known competition rider). Although only 14½ years of age, this young motor cyclist has much experience behind him, having ridden Harley-Davidsons, Triumphs, Douglasses, and a Bradbury and sidecar. His mount on Saturday was a 2¾hp Dougglas...Master Cooper arrived safely at 'The End'. but his father was less successful. We noticed his 3½hp Lea-Francis being wheeled out of the line at Launceston."

the corner. The son was unlucky in running out of petrol near the top. Applebee and Colliver, on Indian Scouts, toyed with the 1-in-5 gradient, but Jones (Ariel) stopped with a broken chain...Quite the most impressive passenger ascent was made by H Dale's 8hp Royal Ruby, which climbed easily and surely and yet was silent...Dan Bradbury got quite excited as he yelled to his passenger to jump out, while he bumped vigorously on the saddle of his Norton sidecar outfit; he got up splendidly...A terrific crackle heralded the approach of Masters on a Harley-Davidson. He charged the inside of the bend at great speed, but stopped higher up only because his back wheel was spinning so fast it had no time to grip the greasy surface!...Fell Smith (Harley) ran on the stones to avoid Sanford (Rover) and stopped...Boxer's Matchless was so fast on the bend that the sidecar lifted.. For one brief moment the sidecar reared in the air, the bicycle still going, then the outfit righted itself and went on well. Allen's Matchless did the same thing, but the driver had to turn into the bank to right the machine, and thereby bent the forks, so that he retired...Charlie Collier (Matchless) was good at first, though he had difficulty in keeping his front wheel straight. Near the top he came to a standstill...With really difficult hills left behind, competitors scurried on to Barnstaple, Holsworthy, and to the luncheon stop at Launceston. Clutch trouble, due to their severe gruelling on the Devonshire hills, was

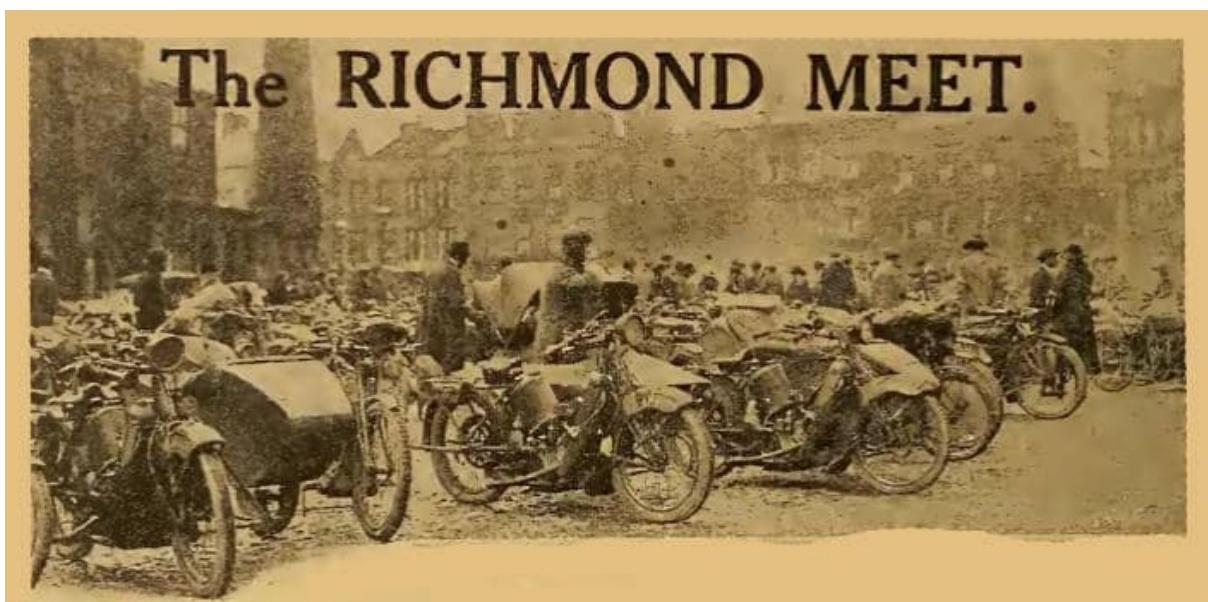


"Some idea of the gradient of Porlock is conveyed by the above illustration, which depicts the second bend of this famous hill."

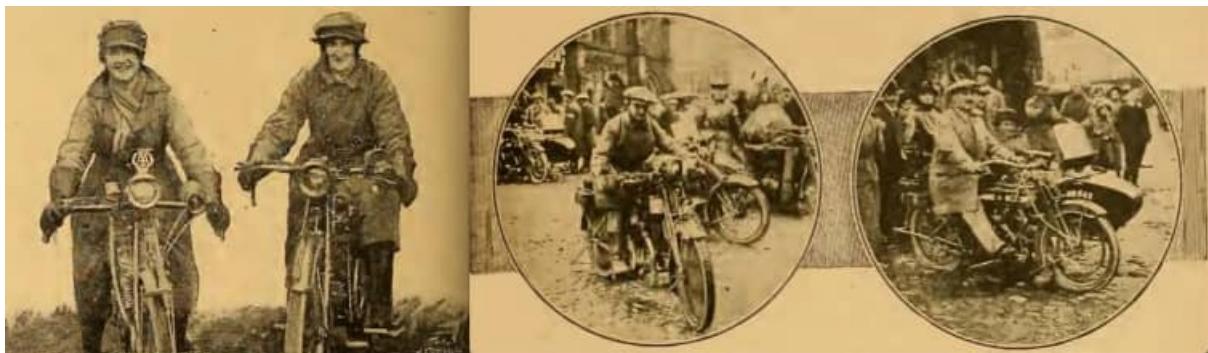
not infrequent, and others were short of petrol. Beyond Bideford the road surface as far as Holsworthy was so villainous as to call down much invective on the heads of the organisers, but the lunch stop at Launceston put fresh heart into the tired competitors...the perfect surfaces of the Bodmin Moor roads were a delight to the heart and a source of much time saving. Good roads continued to Truro, where the old Land's End route was joined. With the exception of the final ten miles and the rough going through the mining district, the final stretch to the extreme west of Cornwall was covered without untoward incident. As usual there was a hearty welcome for the survivors at the Land's End Hotel, which was the scene of many a reunion of old friends. As might be expected, an inspection of competing machines revealed many interesting 'gadgets', both in the way of lighting and personal equipment. One rider even went so far as to attach a tin of cigarettes and an electric lighter to the top tube of his machine." The Jarrott Cup for solos went to TS Sharratt (4hp Triumph); FA Applebee (4hp Indian Scout) was runner up; F Mighell (4hp Triumph) was 3rd. Gold medals were awarded to 42 solo riders; 13 won silver. WH Elce (10hp Morgan Grand Prix) won the Pettyt Cup for sidecars and cycle cars; C Chapman (10hp Morgan) was runner up; G Nott (8hp Matchless) was 3rd. Gold medals were awarded to 24 passenger vehicles; two won silver.



"A Matchless trio—GD Hardee, FJ Ellis, and JA Hoult on the 'zigzag' Arlington Hill."



"FROM TIME IMMEMORIAL (SO FAR AS motor cycle history is concerned) the Market Place in the old town of Richmond in Swaledale, North Yorkshire, has been filled on Good Friday by the clubmen of the North-Eastern counties...The record is one showing the enthusiasm and keenness of the North Country riders, who, since 1907 in the days of fixed gears, belt-drive and accumulators have travelled for the most part with great regularity from all parts of Yorkshire and Durham. The event was undoubtedly the precursor of events which in more recent times have been organised on similar lines...The attendance, considering the mileages covered, was indeed evidence of the keenness of these northern riders, who apparently are not to be deterred by bleak moorland mists, raw and piercing winds, and a drizzle intermittently...The skies were dull, mists hung low on the hills, and only the castle stood out boldly, black and grim against the prevailing greyness...The York, Hull and Darlington clubs came in well



"Miss SF Wilson (2½hp Levis), who travelled 59 miles, and Miss E Dent (2¾hp 1915 Douglas), who had the best kept machine, gained the Motor Cycle Manufacturers' Union and The Motor Cycle prizes respectively." (Right) "WH Dodds (3½hp Sunbeam), winner of The Motor Cycle prize for the most ingenious idea (electric lighting conversion)." Right: "CH Zissler (1917 4½hp BSA sidecar), who had the best kept machine at the meet."

together. A buzzing of Scotts marked the arrival of the Ilkley club, and a contingent of NUTs dashed up from Newcastle. By mid-day the curiously paved square of river-washed stones were alive with motor cyclist, who circulated amongst the orderly rows of machines, discussing the points of each, and noting with interest the many new machines and the 'kinks' and 'gadgets' to be seen...A meeting was held during the afternoon in the Market Hall, and the Mayor of Richmond (Mr FJ Hodgson) officially welcomed the motor cyclists to the town." A silver cup and medals presented by the ACU to the club with the greatest percentage of members present multiplied by mileage were won by the Ilkley MC&LCC; bronze medals went to the Hull MCC as runners up; followed by Newcastle, Durham, Sunderland, Darlington, Wakefield, Northern, Hartlepool, Barnsley, York, Scarborough, Leeds, Rippon and Harrogate. The Motor Cycle presented a silver wrist watch to "the lady with the besy kept machine", Miss E Dent (2¾hp 1915 Douglas); The Cycle ad Motor Cycle Manufacturers and Traders Untion presented a ladies' long distance award to Miss SF Wilson (2½hp Levis, 59 miles); £2 prize "for the owner of the best kept machine" (or as later rallyists called it, the Concours d'Elegance), CH Zissler of Darlington (1917 BSA); "Silver mounted brushes (presented by The Motor Cycle) for the most novel idea, WH Dodds, Newcastle (3½hp Sunbeam).



"Machines of the various clubs arranged in line awaiting the count." (Right) "Gadgets seen at the Richmond Meet: (1) Twist grip control connected to Indian clutch lever; the carburetter is operated by a Bowden mechanism. (2) A seat tube oil tank, with foot-operated pump, on a Triumph. (3) Handle-bar Bowden control for an NSU pattern gear fitted to a 6hp Bat."

"A NEW CONSUL'S BADGE has recently been issued by the Auto Cycle Union. In future all consuls of the ACU will display this badge on their machines, and will thus be readily recognised by members. Motorists displaying it are especially qualified and equipped to assist ACU members, and have undertaken to do so within their respective districts. The duties of an ACU consul are many and varied. He is, for instance, at all times ready to assist members regarding the selection, purchase or sale of a machine. He will advise them in any technical difficulties they may experience in the running or care of their motor cycles; or will, if circumstances require, make an expert examination and report upon any machine. The local consul will also assist members in legal, insurance, touring, and other matters. The consuls are each responsible for a radius of about twenty-five miles from their respective local headquarters, additional ones being appointed in especially populous districts."



ACU consuls."

"Machine badge for



"In the devastated areas: (Top) Many visit the battlefields. on a sorrowful errand, to see the graves of those who have passed over: the graves registration surveyors who assist them use motor cycles in their work. (Centre) The motor cycle and sidecar is useful in carrying both people and goods in the ruined towns. (Bottom) Halt at a wayside estaminet on one of the old battlefields, near Chateau Thierry."

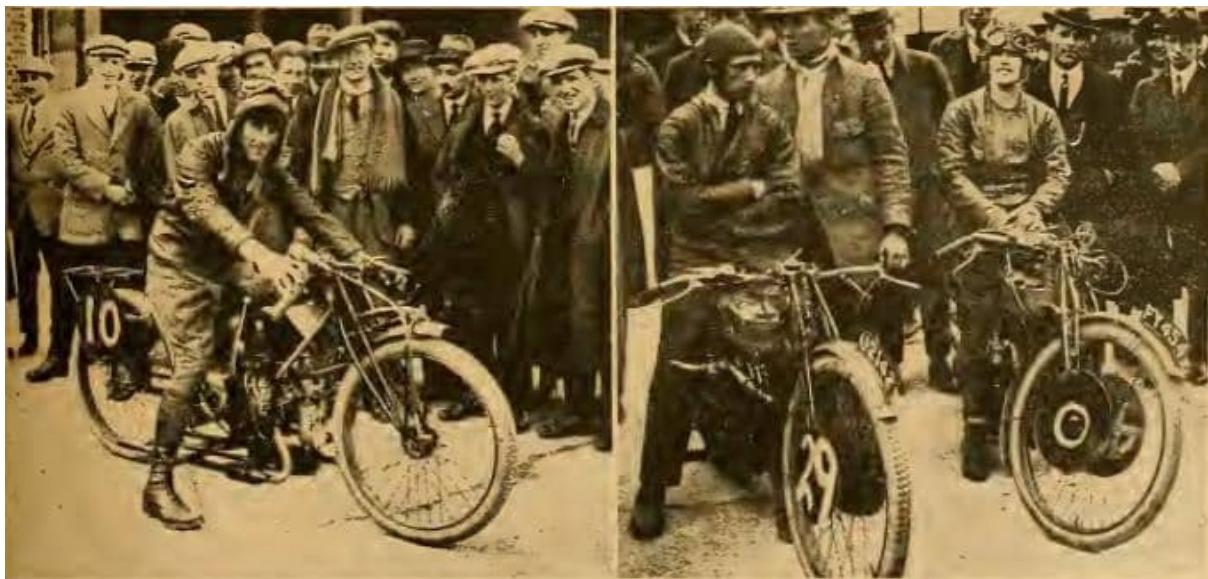
BROOKLANDS WAS BACK IN BUSINESS. The inaugural post-war meeting was scheduled for Easter but torrential rain delayed the action for a week. "The first glimpse of the recently repaired track, glistening in the strong sunlight, and the decent roar of the competing machines, revived fascinating thrills of the track after many years of anticipation. That the popularity of the classic sport continues could be observed by the many thousands of racing enthusiasts and the long lines of cars and motor cycles on the course. The first race, for solo machines of any class,

arranged to start at the Fork at 2 o'clock, was the Victory Handicap, in which a distance of 8 miles 842 yards was to be covered. The competitors passed the Fork twice, and then entered the straight to finish at



"Motor cyclists assembling for the first race in the afternoon."

the grand stand. Of the 27 entrants, 20 starters got away well. Although not entered in the official programme, a very creditable start was made by Mrs Longden, astride a 2½hp Douglas. Rapid acceleration brought this lady well to the fore, but possibly the wind resistance offered by her skirt spoilt her promising performance. J Woodhouse on his Matchless, although handicapped to the extent of 12 secs, rode well, whilst J Emerson, astride a racing ABC, literally swallowed up the yards amidst a crackle from his twin exhaust pipes. OM Baldwin on a Matchless had bad luck and dropped out on the second lap, as also did E Kickham (Douglas), whilst momentary excitement was caused by the premature appearance on the straight of SF Garrett (Indian), who informed a representative of The Motor Cycle that the plug of his front cylinder had failed. From the start Emerson maintained a fast speed, and roared in first at the finish well ahead of the runner up, WA Jacobs on a Singer, the former rider having lapped at 66-7mph. Closely pursuing, GJ McIntosh (Singer) took third place, whilst running at a short distance from each other the following finished in the order named: H.R. Harveyson (Indian), VE Horsman (VEH), H Martin (Matchless), and T Eve (Matchless). At the finish, Mrs Longden, who came in well, stated that the track was in places bumpy, otherwise it was a delightful



"J Emerson (ABC), who won the Victory handicap and the 500cc sprint race." (Right) Two Douglas entrants. Mrs E Longden was the only lady motor cyclist on the Brooklands course."

race...The next race was a sprint of three miles 76 yards for motor cycles of a capacity not exceeding 350cc...HE Wells (2½hp Douglas) got away at speed, and held his pace, finishing little in rear of the winner, T Eve, on a Matchless, who lapped at 54.2mph. Closely following came WA Jacobs, on the Singer, securing third place, whilst E Longden (Douglas) and AF Houlberg, on a new and shining Wooler, finished well. The most enthralling race of the day then followed. J Emerson (ABC) and DR O'Donovan (Norton), two previous record holders on fast machines, were well in the running, and there was much controversy as to the likely winner...Eager faces strained to watch the two likely winners, visible as two tiny specks in the distance. Slowly they crept towards the stand, O'Donovan leading, Emerson pursuing closely. It was but within 100 yards of the finish that the ABC slowly crept up, the eager spectators gripped the railings, and in a most exciting finish J Emerson proved the winner. Well in the rear followed VE Horsman (VEH), who was then considerably ahead of the runners up. Emerson's average speed was 64.3mph. The 1,000cc sprint race was of an equal distance to the foregoing...J Woodhouse on his eight-valve Matchless proved an easy winner, he attained a speed of 75.9mph over the lap. OM Baldwin, another Matchless rider, followed, whilst third place was secured by E Remington on a JAP-engined twin, HR Harveyson, on an Indian, following."

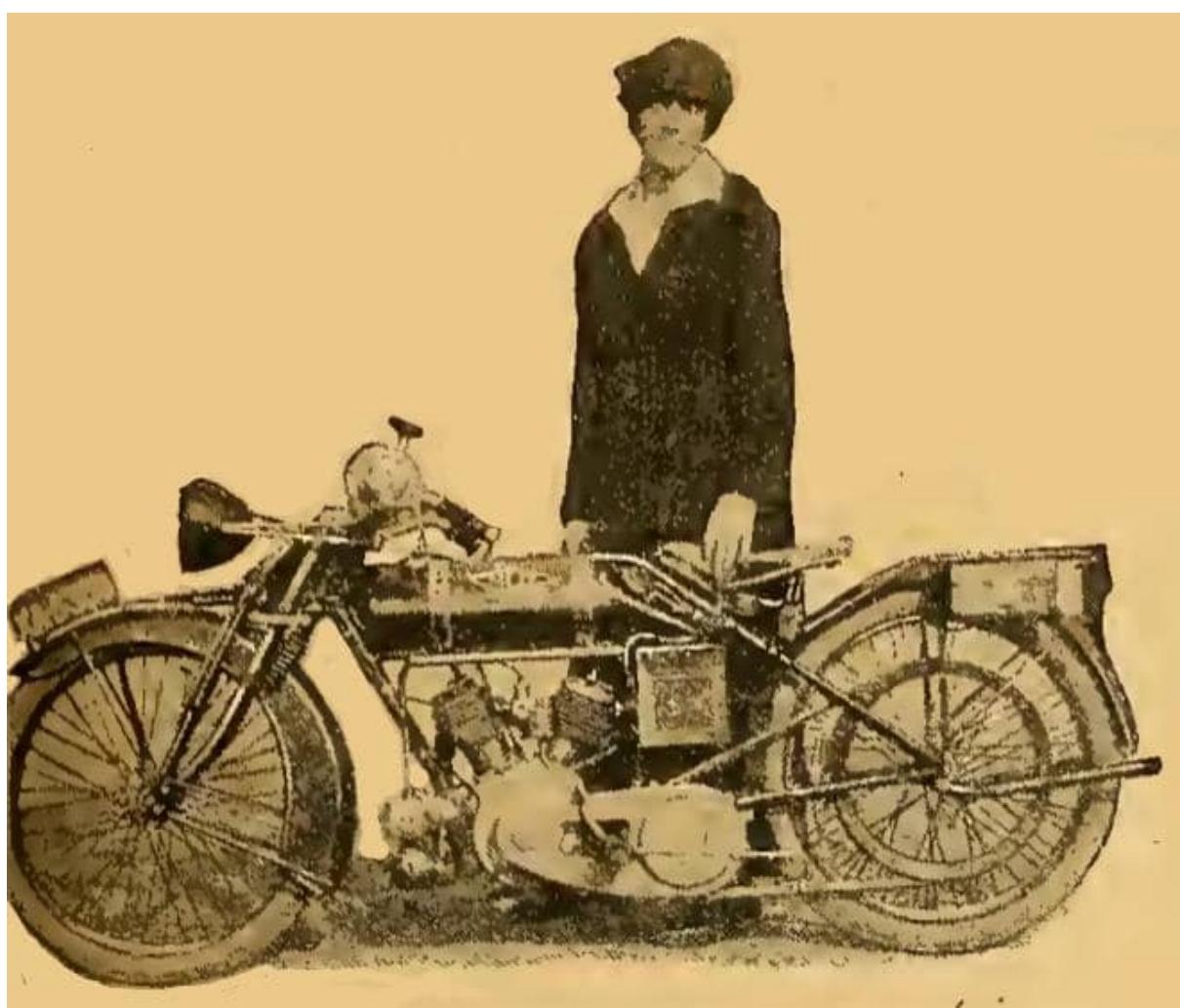


"The start of the 1,000cc sprint race."

"SIR,—FOR THE PAST YEAR it has been my ambition to ride in the London-Edinburgh run at Whitsun. I received my first shock at the Motor Cycle Show when the new machine I had ordered did a £20 jump. I never realised how much I had wanted it until I thought I had lost it. It was my ideal motor bicycle and none of the others would do as a substitute. After twenty-four hours of anxious thought I decided not to cancel the order. As the machine had electric light

(and what an asset that would be in the London-Edinburgh!) Then came the day when I took delivery, and found that it more than fulfilled all my expectations. Comparing it with others (that have been rising in price steadily since the Show), it did not seem so terribly expensive. In a state of great enthusiasm I wrote for particulars of entry for the London- Edinburgh. Then the second blow fell. Only members of the Motor Cycle Club can ride in it, and ladies are not eligible. I wrote to ask why, and the secretary answered that the subject had been discussed recently and turned down, but that an alteration of the rule might be made another year. I know nothing about motor cycle clubs, but, I presume, the housing problem is responsible for this. I suppose the MCC has premises in London, and the inclusion of ladies among the members would mean extra rooms at the club. Probably, at present, the number of ladies who would join would not justify this outlay. I wonder, though, if, for a reduced subscription, they could not become merely riding members. It does seem hard that a boy of fourteen and a half years may ride in the Jarrott cup trial, while we, just on account of our sex, are ruled out of everything. It is very disappointing. Are there others who share my feelings on this subject? I enclose a photograph of the aforesaid 'ideal machine'.

(Mrs) E Manvell."

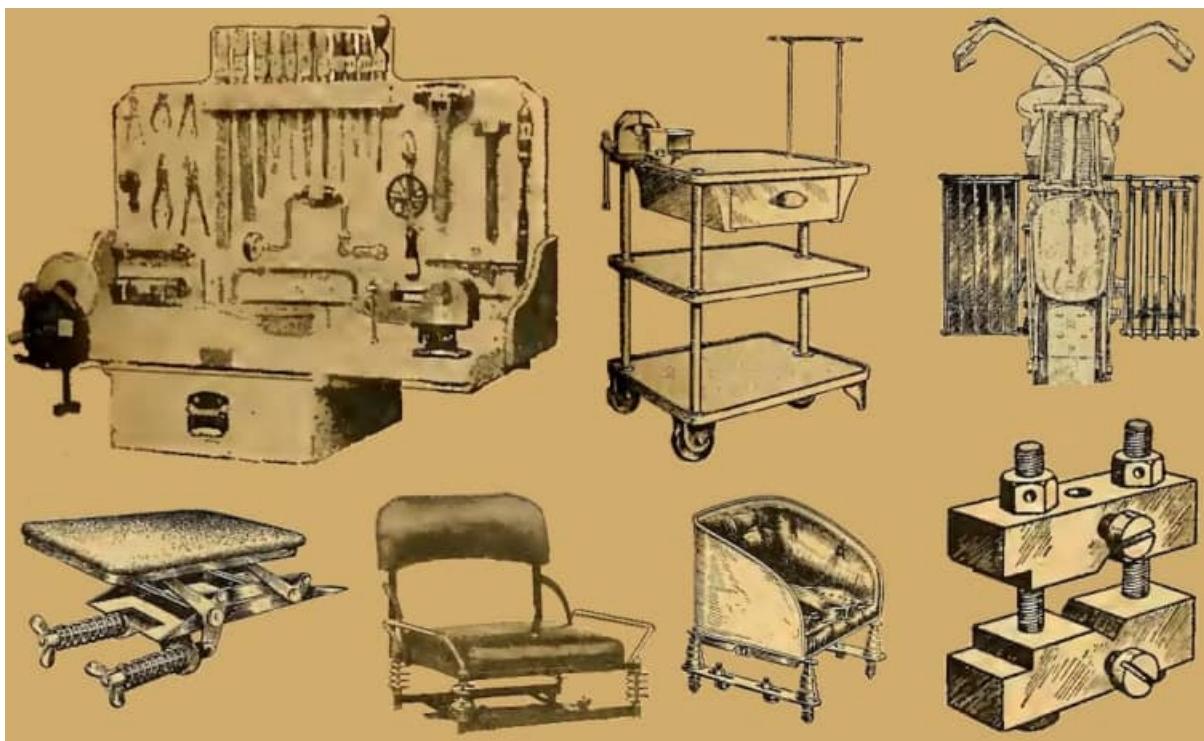


"A would-be lady competitor in the London-Edinburgh run. Unfortunately, a rule debars ladies from competing."

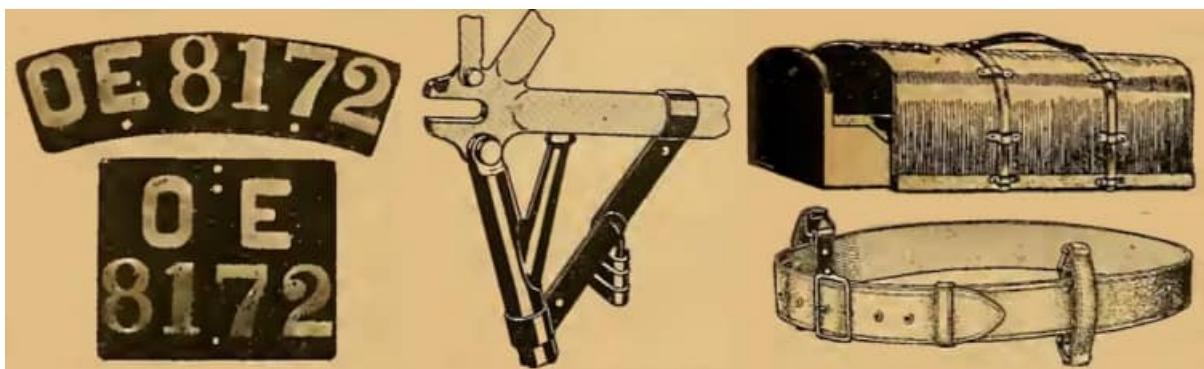
A STATEMENT WAS MADE RECENTLY by Sir Marcus Samuel at the Commercial Motor Users' Association which is of particular interest to users of motor fuel. He said, during a discussion on

the scarcity of petrol and the possibility of substitutes: "The Shell Co would take part in the distribution of any substitute for petrol which could be found on any terms the Government thought fair." He and his brother would never sell out to the United States. The Government had had many chances of buying a controlling interest in the Shell Co, and had refused every one.

"PROBABLY NO OTHER FIELD attracts so many designers and makers of accessories as that of the motor cycle. Every week sees new ideas and new goods submitted for judgment and review, and we are able to deal with only a portion of them...This week's selection includes a useful little accessory known as the First Aid Mechanic or FAM. It is a combination of nuts, bolts, and bars which can be used in a variety of ways for temporary repairs. The first day we carried it we found a use for it in holding together the broken ends of a mudguard stay. Its uses are too numerous to mention, and we recommend motor cyclists to send to the makers, B Young & Co, Leek Street, Birmingham, for particulars...Amateur mechanics will be interested in tool stands and work benches. The St Giles, made by St Giles Engineering Works, Northampton, is of wood and is collapsible, folding into a compact form for storage. It has no fewer than thirty tools, including grinder and vice. The dimensions are 3ft 6inx1ft 9inx2ft 8in high with four tubular steel legs and undershelf. Another bench is of metal and is on small wheels, the idea being that the bench may be taken to the job instead of conveying heavy parts to the bench. The size is 24inx24inx30in high, weight 2cwt 2qrs 14lb. It is made by the Progressive Engineering Co of Leicester, Denton...ER Wintle, the Midland competition rider, is marketing a bucket seat for the pillion. It is sprung on volute springs carried on sliding spindles, and small coil springs are also fitted to prevent undue movement when the seat is not occupied. It is made in two sizes (for adults and children respectively), is well upholstered, and is enamelled to match the machine. Another pillion seat which has a backrest is the latest model of the Ideal seat, made by the Coventry Ideal Pillion Co. The illustration is self-explanatory, it only being necessary to point out that the back rest is secured to the sprung part of the attachment. Still another pillion attachment is the CL, a speciality, of C Lamb, 32, Edmund Road, Saltley, Birmingham. It has adjustable springing, and it is claimed that side sway is eliminated. J Collyer and Co, of 133, Hockley Hill, Birmingham, send particulars of their legshields, which are made on the Venetian blind principle. Aluminium slats are mounted in a light steel frame and are capable of being fixed at will either in the open or closed position, providing protection in wet weather and in the summer, permitting air to be reflected on to the engine.



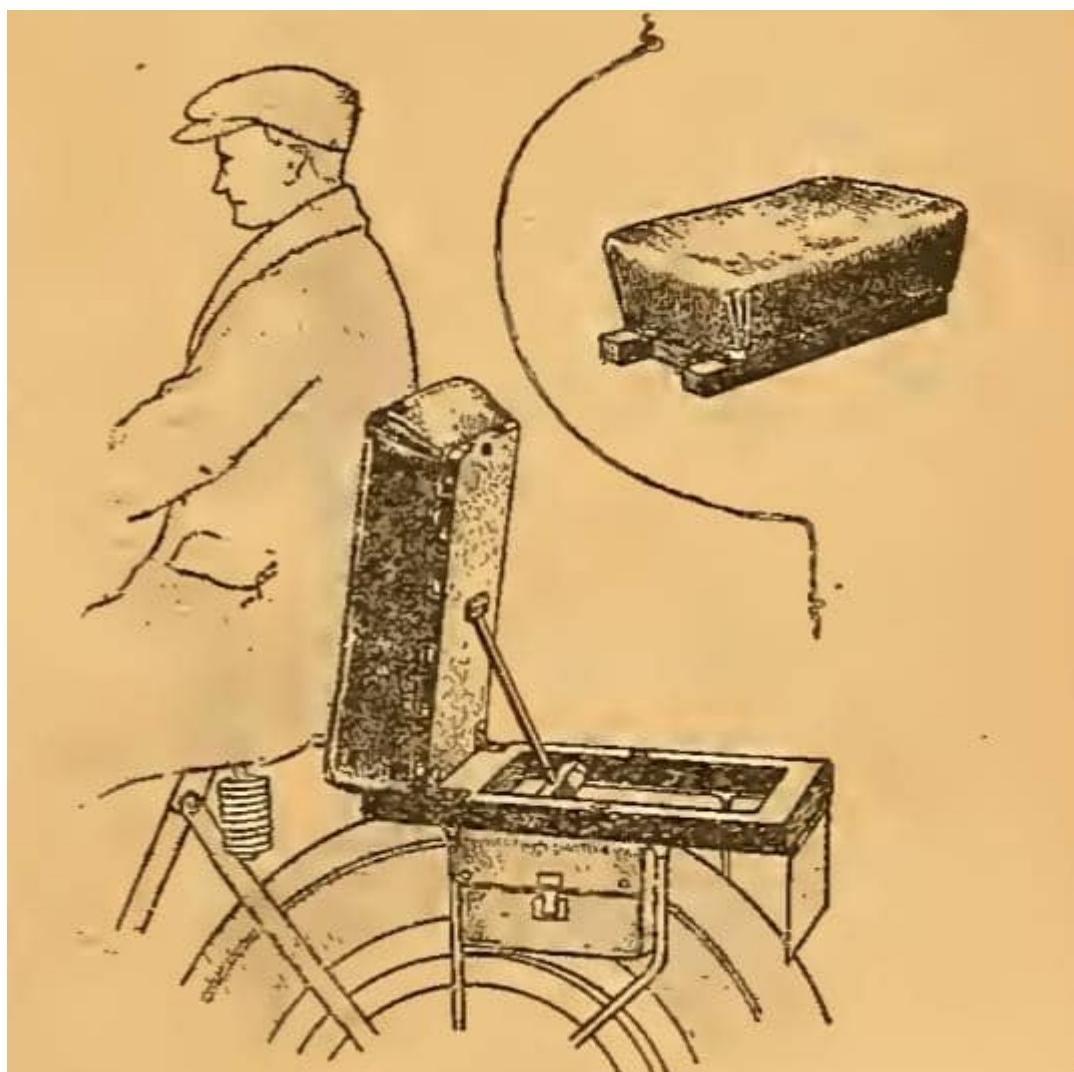
"The ST Giles's collapsible work bench. CL workshop stand. Legshields on the Venetian blind principle made by Collyers of Birmingham. CL pillion seat, which has adjustable springing. The Coventry Ideal pillion seat, with back rest. The Stirling pillion seat. The FAM (First Aid Mechanic), a useful accessory to execute temporary repairs."



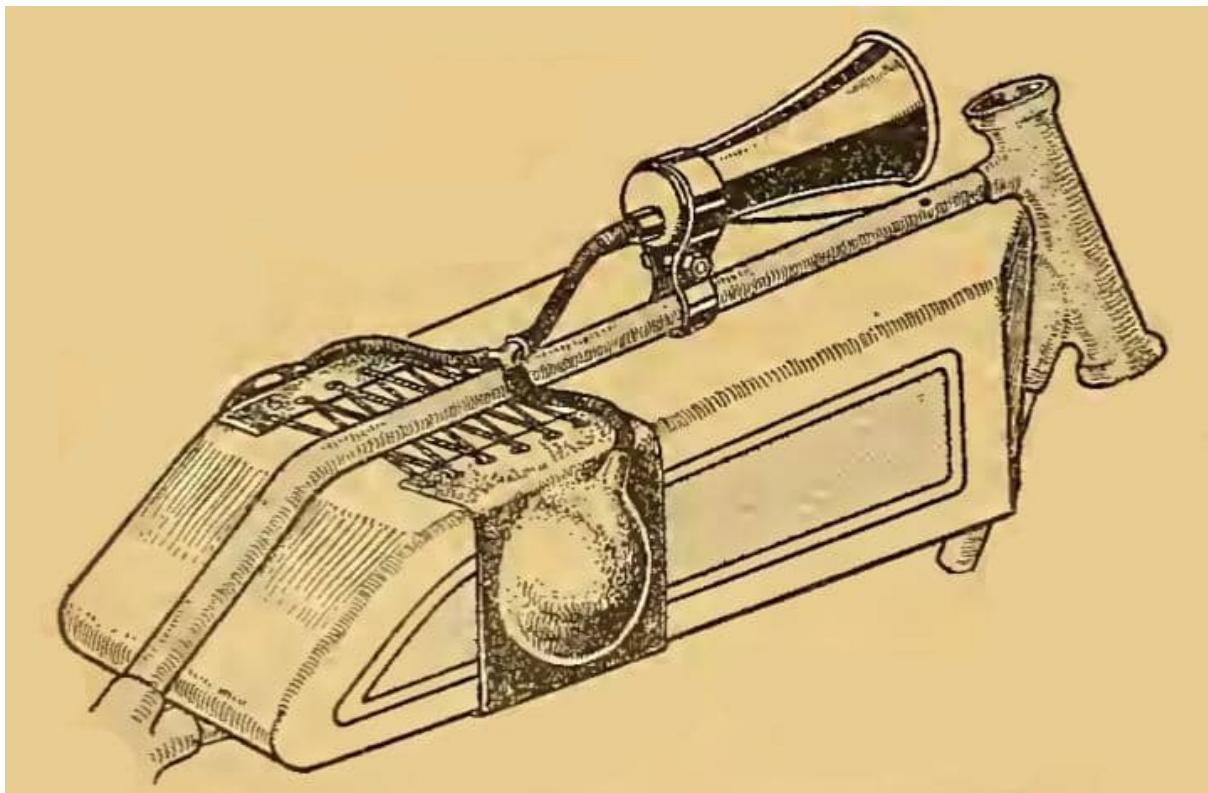
"The aluminium number plates illustrated are sold in sets of numbers by Arthur Gough, 173, Broad Street, Birmingham, and when fitted to the usual number plates the fixing rivets are not visible. A means to lock a motor cycle stand has been brought out by Morgan and Green, 24, Chancery Lane, WC2. In leather goods, there is a useful draw type valise for the carrier marketed by Dunhills, Ltd, Euston Road, NW1, and a belt for the motor cyclist who carries a passenger on the pillion, which is sold by Macklins, 157, Dale Street, Liverpool."

"THOSE OF OUR READERS who have often to leave their machines exposed to all weathers will find the motor cycle cover brought out by the Howard Car and Cycle Cover Co, 41, Fetter Lane, London, EC4, to be an exceedingly useful accessory. The cover is made of water and rot-proof canvas, shaped to fit over a motor cycle or motor cycle and sidecar. Its top is designed to present a sloping surface to the weather, so that a water-shed is formed, which effectually protects the machine against the most violent downpour. It is also designed that it may be rolled up and carried and strapped on to the carrier. The device should be a great boon to those who have to leave their motor cycles temporarily out of doors when garage accommodation is

not available, and should be extremely useful to those happy motorists who possess week-end cottages which have not any motor house accommodation."



"criticism often urged against back-rests on motor cycles is that they impede the rider when mounting or dismounting. This objection has been overcome by a hinged pillion seat provisionally protected by Mr CR Mills of Leamington."

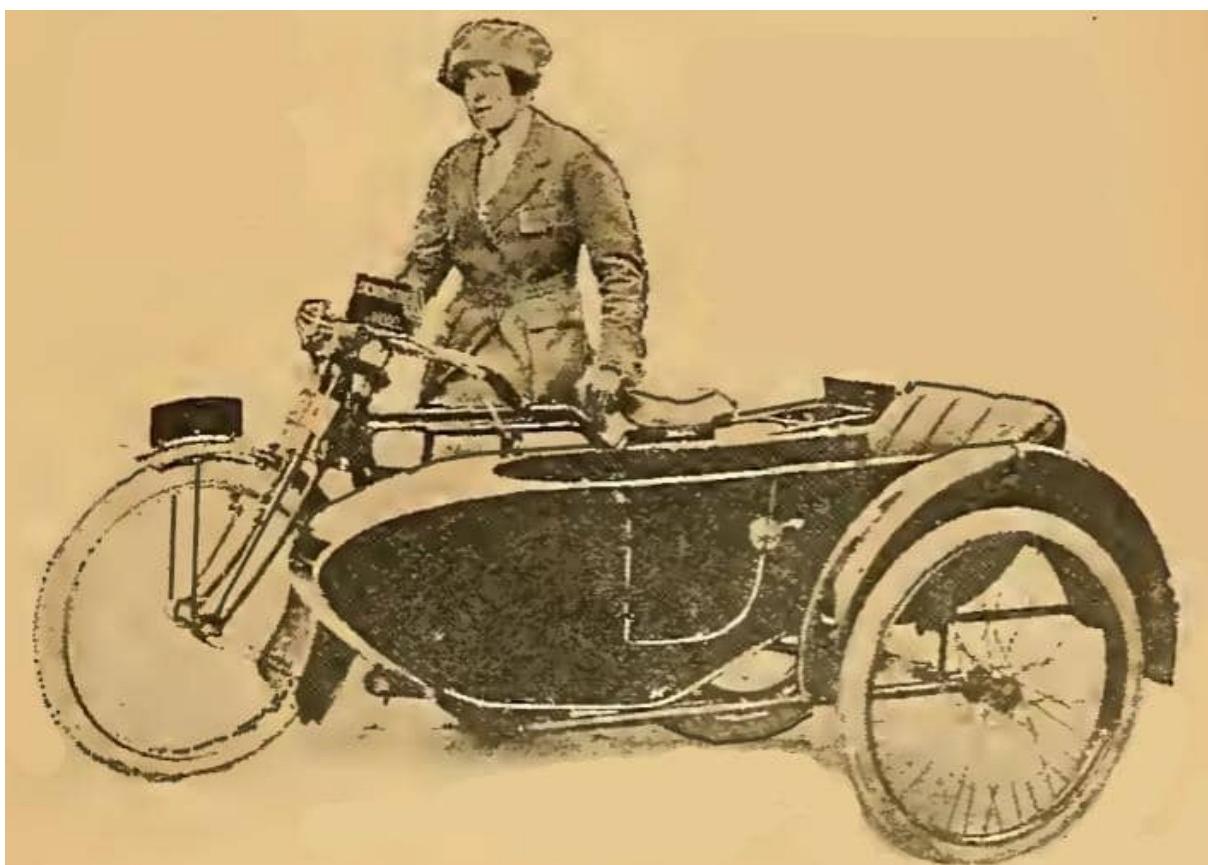


"With the idea of operating a horn without having to remove the hands from the handle-bar, Messrs Alexander and McLay of Birkenhead have patented the device illustrated. It will be seen that it is intended to embody two bulbs in knee-pads, from which rubber pipes are carried to a Y connection, thence by a single pipe to the reed...a query arises regarding the probability that the horn would be operated by the rider's knees at other times than when wanted."

"MANY MONTHS AGO *THE AUTOCAR* urged that the Government should control fuel supplies. The object in mind was the protection of a key industry of growing importance, which is, to all intents and purposes, in the hands of the petrol ring, the existence of which is denied. As we go to press rumours are afloat that the Government is now negotiating for a controlling interest in the Shell Transport and Trading Co. If this should prove to be correct, it may form an important step towards Government fuel supply. The war has shown us the vital necessity of ample oil fuel supplies, and it is to be hoped that some satisfactory agreement will be reached. Despite the importance of the move, it must not be looked upon as the solution of the fuel problem, for there is a threatened shortage of oil fuel throughout the world, and, unless further supplies become available in the near future, this shortage is likely to become acute. In the development of the British oilfields lie possibilities which must, however, not be overestimated. Shale oil and the encouragement of benzole production can, undoubtedly, help to ease the situation, but power alcohol would appear to be the ultimate solution, since the supply is to all intents and purposes inexhaustible."



"The first motor scooter trial ever held in France took place in the historic park of St Cloud and was witnessed by big crowds, attracted probably as much by the announcement that well-known actresses would be among the riders as by the machines themselves...There were three tests, namely, a 220 yards hill-climb; a speed test on the level, distance 1,093 yards, with standing start and finish; and a driving test. The leading figure of the competition was Mile. Schweitzer, a French girl of only fourteen years of age, who showed wonderful skill in the handling of her machine."



"A new business sphere for lady motor cyclists: Miss B Armin, a lady demonstrator of the 'X' Motor Co, Torquay, with a two-stroke Scale lightweight sidecar outfit."



"A group of Swiss military motor cyclists during mobilisation. The motor cycles are fitted with the famous MAG engine, mounted on Enfield frames, with Enfield change-speed gears."

"A DIFFICULT trial, splendidly organised, sums up the second Victory Cup trial of the Birmingham MCC. It was one of the twenty open ACU events of the year, and 177 entries resulted. Of these, twelve riders failed to start, and 156 survived. Hills there were in abundance included, in six non-stop sections, but the outstanding event was the flexibility test up Birdlip Hill. Once the terror of motor cyclists, this Gloucestershire gradient is now an easy climb. So much so, indeed, that the competitors restarted with ease on a steep part of the hill, and accelerated as if the road were flat. Spectators gathered at all the points of vantage, and must have outnumbered previous crowds...The roads were wet, and in many places covered with slimy clay. Beacon Hill leaves the main Birmingham-Worcester road a little way beyond Rubery with a sharp turn and steep



"The Old Wyche, Malvern, one of the steepest test hills on the route. The rider is B Bladder (8hp New Imperial sidecar)."

gradient, which soon eases, but the surface becomes very bad especially for sidecar machines, owing to the deep clay ruts at the sides of the road; that on the left took the sidecar wheels up to their axles and caused them to bounce horribly and drag the machine out of its course...FJ Price (2½hp Diamond) was baulked by M Hartland on a similar machine at the worst bit of the road. He swung to the right through clay ruts six or eight inches deep, on to the grass and back into the road without any apparent effort and continued his way—a skilful piece of riding!...In pre-war trials it was usual for trials organisers using the Wyche to requisition a gang of 'navvies' with ropes to take charge of the machines that failed on the hill, but so greatly improved are present-day motor cycles that the only ropes in use were those utilised to keep back the interested public...Leaving Cheltenham, the course lay along Gambles Lane, rejoining the main road at the top of the



"HH Saddington (5-6hp James sidecar) and RC Atcherley (4hp Triumph) turning into the 'Colonial Section' at the top of Studeley. Boynton(5-6hp James) in the Street Brook watersplash. One of the New Neal Dalm two-strokes and a BSA checking in at British Camp."

famous Rising Sun' Hill. As usual, many spectators had gathered to witness the climb, and though the road surface was dry and distinctly better than on the occasion of the Colmore Trial, there were several quite exciting moments, especially when competitors floundered about in the loose stones, or had to get past others who were in difficulties. The majority of the riders made light of the hill, some roaring up seemingly in a great hurry, others taking it easy on low gears. Quite the fastest ascent was made by SE Longmore (8hp Harley- Davidson sc). He fairly 'zoomed' up, bouncing in his saddle all the way. JN Roberts (3¾hp Scott), FA Applebee (3hp ABC), WB Gibb (2½hp Douglas), and G Dance (3½hp Sunbeam) also made fast climbs. W Ford (2½hp Coulson B) came up well but fell near the top. Both TF Watson (4hp Norton sc) and E Porter (3hp ABC) were baulked by the spectators and slower machines, but managed by magnificent driving to get past without mishap. JS Bacon (6hp Regent sc) failed on the corner, and, running backwards, was narrowly missed by T. Stephens (4¼hp James sc). Altogether a dozen competitors failed, all these being low-powered sidecars or lightweights. There were several quite spectacular performances, which evoked much enthusiasm and comment on the part of the crowd. Gus Kuhn (2¼hp Levis) roared up with one hand on the bars, showing that familiarity with the hill breeds contempt. L Paynter (3½hp Norton) waved furiously to the crowd and very nearly fell in consequence. The luckiest competitor at this point was, however, GW. Walker (3½hp Norton). He came up swerving in an alarming manner, and very nearly ran into the spectators in his attempt to recover. Everyone gave him up for lost, but he found himself safe at the top...Rev J M Philpott, the



"Competitors awaiting their turns to start in the accelerating test. HV Collins (4½hp BSA sidecar) and OG Smart (8hp Sunbeam sc) leading."

ACU consul and chaplain of the Coventry and Warwickshire MC, climbed all hills successfully on a brand-new 2¾hp Wilkin-Blackburne, which was only handed to the owner on the previous afternoon...The scene at the finish was a very animated one, for, in addition to the 250 competitors and passengers, and the multitudinous officials, there were several hundred spectators to welcome, the riders back. Only nine competitors failed to check in at the finish." Results: Victory Cup and gold medal (best solo performance), A Milner, (2½hp Diamond); Midland Cup and gold medal (best sidecar performance), JE Greenwood (3½hp Sunbeam sc); Duke Cup and gold medal (highest scoring solo over 275cc), FA Applebee (3hp ABC); Alec Ross Prize (highest scoring solo under 275cc), A Milner (2½hp Diamond); special gold medal for best performance by private owner, JH Walker (4hp Triumph); class winners' gold medals (excluding winners of premier awards), FJ Lidstone (2¼hp James); GE Stobart, (5-6hp James sc); JH Walker (4hp Triumph); HB Denley (8hp Morgan); E Porter (3hp ABC); team prize, Sunbeam (JE Greenwood, G Dance and Tommy de la Haye); runner up, BSA (LL Sealey, HF Edwards and MC Breeze; third place, Norton (H Hassall, L Paynter and GW Walker.



"RH Nicholls (BSA sidecar) passing interested spectators on Rising Sun. Note the loose surface of the road."

"IF A MOTOR SCOOTER IS NOT A MOTOR CYCLE, as some affirm, it is indeed difficult to find the line of demarcation, for it is certain that neither frame design nor engine size determines the respective types, hence one can only assume that wheel size decides the point. Nevertheless, however small a machine may be, it is still a cycle. Most of the so-called scooters bear not the slightest resemblance to the child's toy, the name of which was first used by The Motor Cycle in connection with a machine that had some of the scooter's characteristics."

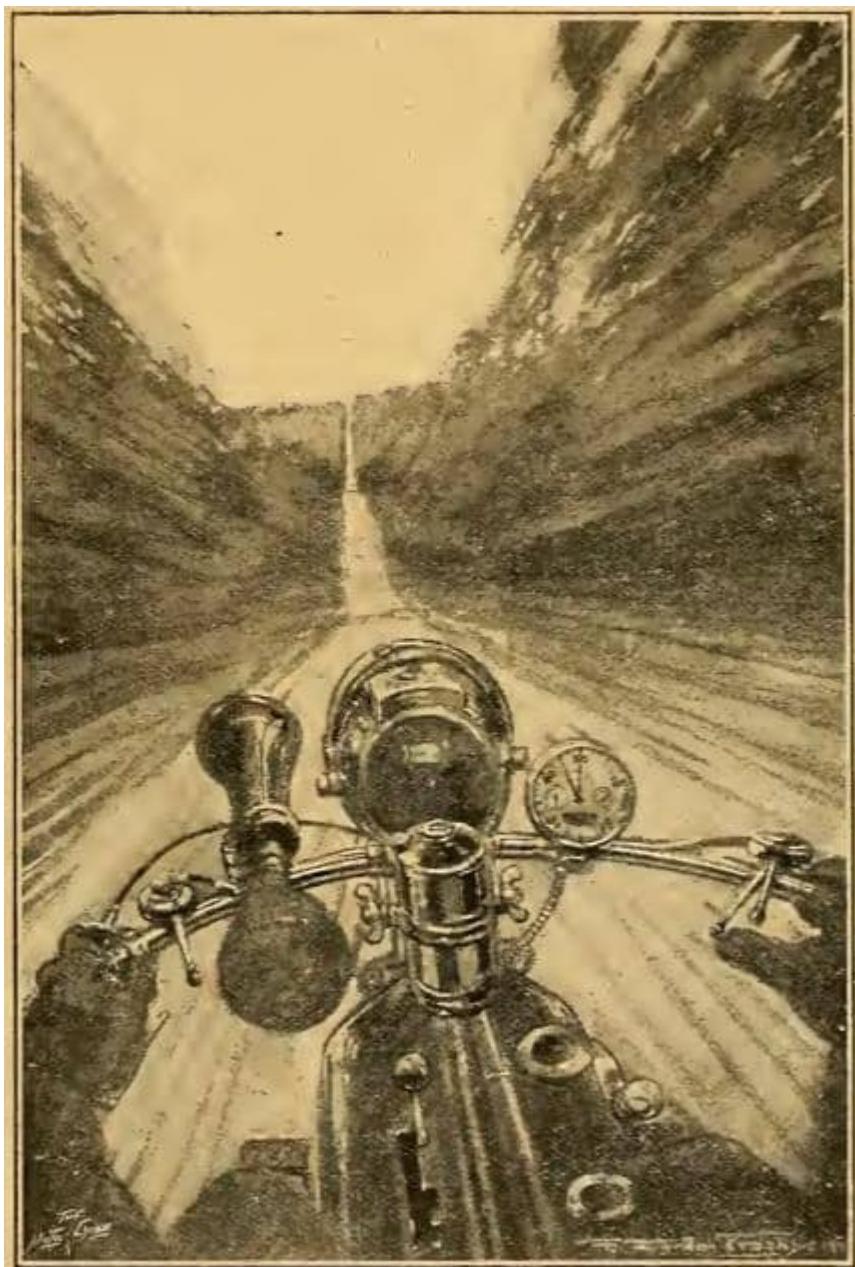
"THE COMMISSIONER OF POLICE for the Metropolis has issued a warning to motorists who permit their number plates to be obscured by mud or dust."

"ELECTRIC TRANSMISSION is coming to the fore in cars. Shall we have petrol-electric motor cycles?"

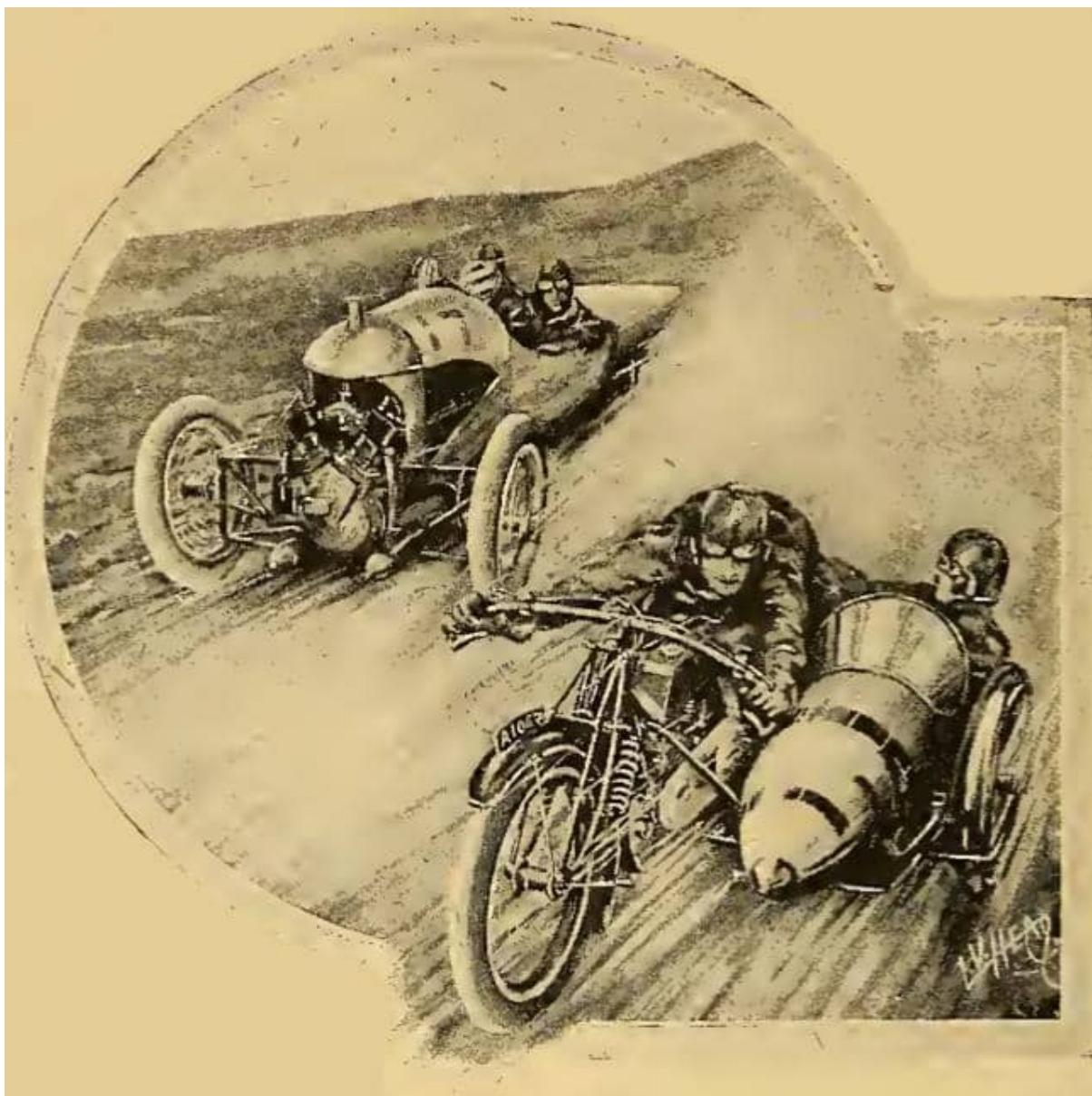


The Sport Club Milan hosted a 5km hill-climb at a rainswept Monte Vecchia. "The gradient is 1 in 5 in places, with very bad corners." Indians were first and second in the 1,000cc class; An Indian was fastest 750 with a Triumph as runner-up; a Sunbeam won the 500cc class ahead of an Italian Fresa; first and second fastest 350s were both Douglases—but a 3½hp Sunbeam made the fastest climb of the day. A 500cc Gilera is pictured, ridden by Giuseppe Gilera.

"MY WEEK-END WAS ENJOYED with the aid of a TT Norton, Ixion wrote. "This 'bus can safely be driven over wet roads at an average figure which the correspondents of the daily papers 'Paterfamilias', 'Conimonsense', and other gentlemen of that kidney, would consider formidable on Brooklands. If there is a fiercer 3½hp than the Norton speed model, I should like to meet it; and yet it can amble along without pinking, like a medieval abbot's palfrey."



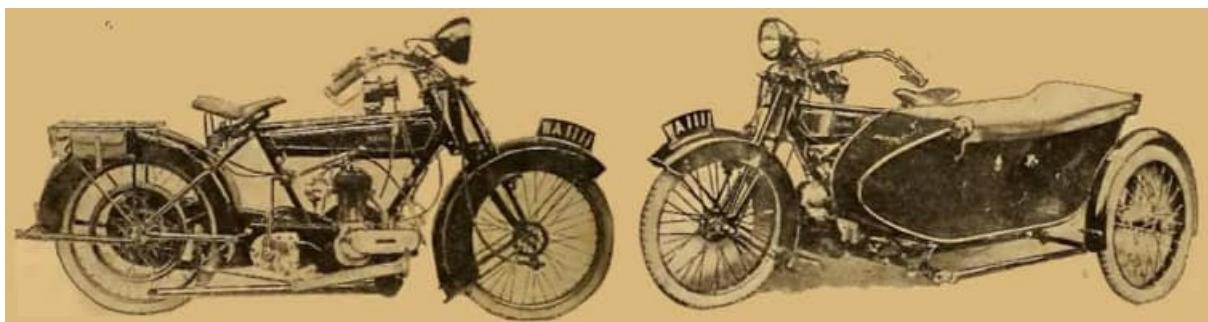
"The open road. what
fascination there is in watching the road ahead—especially if it be a route with which one is not
acquainted? To reach the horizon, to guess what lies beyond is a never-ending source of
pleasure. On a road such as is depicted, the motor cyclist enjoys an exhilaration unknown to the
rest of his fellows."



"A duel between a racing Morgan and a sidecar: if these types of vehicles are ever entered for a TT event]n the Isle of Man, some spectacular cornering may be witnessed, as was the case during the last Grand Prix."

REALLY HIGH-CLASS SINGLE-CYLINDER machines are few and far between among the newcomers to the market, market, and for this reason the Wilkin 4hp machine will attract its full share of attention. It is the product of Mr GW Wilkin, of Sheffield, who for several years has been selling motor cycles besides riding them both privately and in competitions...The engine is the well-known Blackburne '4', and the gearbox a Sturmey- Archer with all-chain transmission totally enclosed in well-proportioned cases. Having n sloping top tube, the frame has distinctive lines, and is rather longer than would have been necessary on a machine intended for solo work. The Lucas Magdyno combined lighting and ignition set forms part of the equipment and the black finish is relieved by neat gold lining on the tank and a plated handle-bar. The mudguards are of good width, and in the case of the front wheel guards extend outside the fork members, while the valances on both are deep. At every point the design and construction appear to be sound, and we should not be surprised to see the Wilkin become very popular, not only in the districts adjacent to its birthplace, but among motor cyclists generally. We

congratulate Mr Wilkin on a splendid machine, which comes as a welcome addition to a type of which there are not too many representatives."



"The Wilkin '4' is an attractive machine, on which mudguarding has received closer attention than usual. It is fitted with a Lucas Magdyno. Sidecar side of the Wilkin outfit."

"THREE ATTRACTIVE MODELS OF THE BRITISH EXCELSIOR: A Blackburne-engined lightweight, a two-stroke with flywheel magneto, and a new big single for sidecar work are to be added to the range of models manufactured by Messrs Bayliss, Thomas and Co. Commencing with the simplest form of two-stroke, and ending with an 8hp de luxe sidecar outfit, British Excelsiors will soon be made in three distinct types, instead of two as at present. Two of the new machines coming into the existing lightweight group, and the third is an entirely new model to meet the demand for a medium-powered utilitarian type of sidecar machine for those who do not feel justified in investing in a de luxe motor cycle such as the present-day big twin. This medium powered machine will have a specification similar to that of the pre-war outfit modified to suit present-day conditions, but sans such items as interchangeable and quickly detachable wheels, spare wheel, dynamo lighting, enclosed all-chain drive, hood and screen. The engine is a moderate compression single of 650cc, and is of the same design as the engine fitted in the 4½hp single before the war. For the benefit of those who are comparatively new to motor cycle matters, we remind readers that those responsible for the Excelsior have had considerable experience of 'big singles'; one of the 1914 models which was sold in large numbers had a single cylinder of no less than 800cc capacity."



"The first flywheel magneto Villiers engine to be illustrated in a machine -the latest two-stroke Excelsior. (Right) The 8hp British Excelsior with sidecar removed to show that side of the machine which is hidden by the passenger attachment."

SIR,—AS A READER OF YOUR valuable columns, I should like to raise the question of foot controlled gear change appliances. The only examples I know of on the market at present are the Sturmey-Archer gear boxes up to the 1919 model. The gear change lever on these can be adjusted to be worked by either hand or foot. Unfortunately the latest type of this make is designed to work by hand only. I can safely say that 90% of the DRs who rode Triumphs during the war used the foot for changing gear. The result is always a much quieter change, and

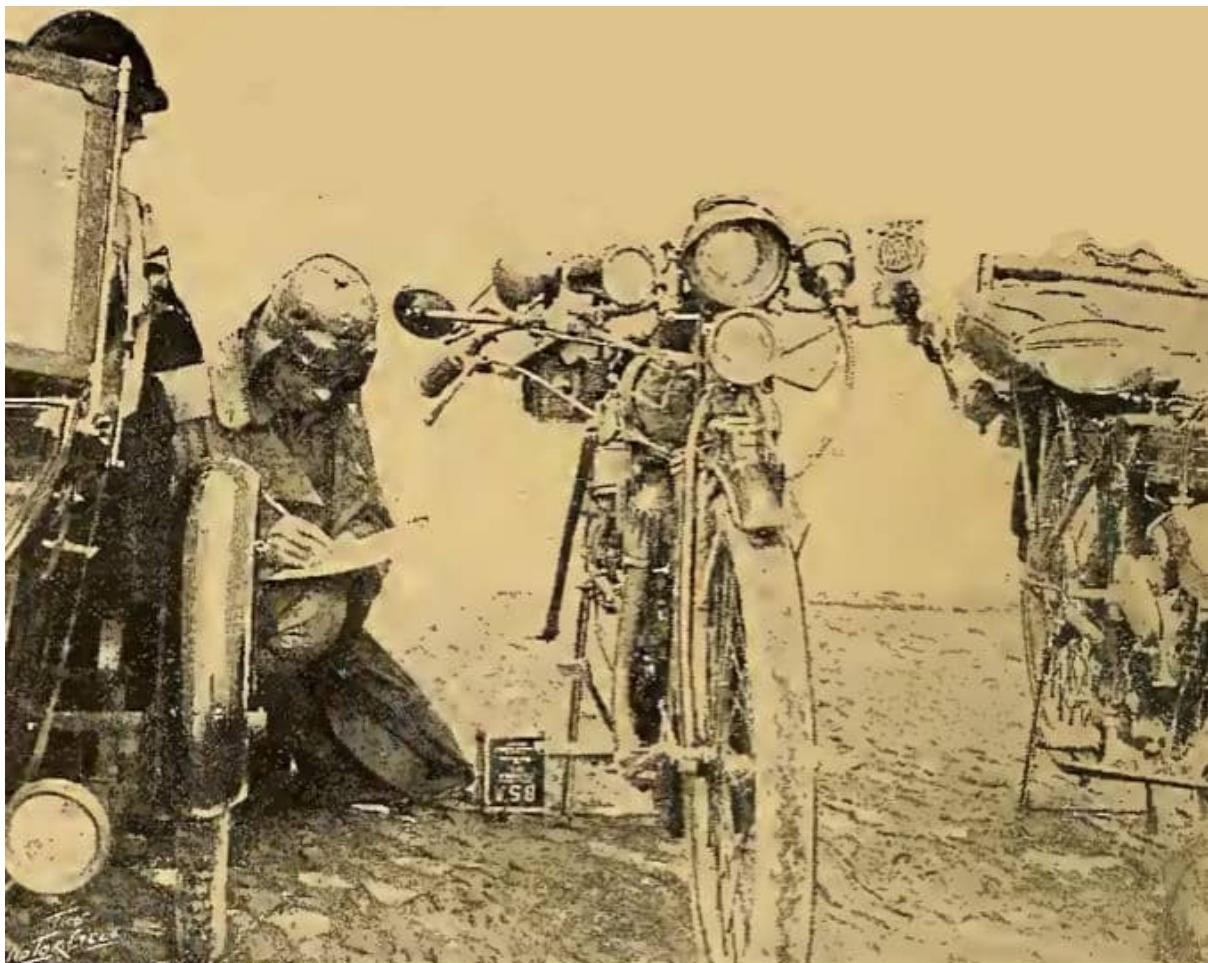
consequently less shock to both engine and transmission. For example, when changing up, the clutch can be disengaged with one hand, the throttle slightly closed with the other, and at the same time the gear change lever can be moved with the foot. Another point in favour is that the hands can be kept on the bars the whole time, which is a considerable advantage when riding solo, or with pillion passenger, over 'greasy' roads.

Signals, Manchester.

"LAST WEEK END THERE began a campaign for the examination of driving licences all over the country. Motorists were held up, sometimes in queues, for this purpose, and it behoves every driver to remember his licence before starting on a run."

"I HAVE PERFORMED FEW FEATS in my life which were worthy of being filmed," Ixion admitted, "but no Los Angeles stunt merchant has ever excelled a quite involuntary show of mine last week. I was trying out a brand new machine which is rather hot stuff, and the road was new to me. After an hour or so I was still thirsting for a chance to get the throttle wide open when I arrived at a long straight piece of going, which fell gently down into a valley and climbed gently out the other side. There wasn't a soul or an animal in sight, and, after one gleeful glance through my dusty goggles, I flattened down on the tank, and let the machine rip. I was doing rather more than a mile a minute as the bottom of the dip rushed up to meet me, and only at the fifty-ninth second of the fifty- ninth minute of the eleventh hour did I realise that the somewhat odd look of the road surface in the dip was a watersplash. It was too late to stop. The depth of the water was problematical ; also the kind of surface which lay beneath the water. All I could do was to hang on like grim death and trust to luck. The water came up and hit me like a solid wall. I emerged, stunned and dripping, but erect, a wiser and more prayerful man."

"A FEW DAYS AGO a young couple attempted to elope to Scotland on a sidecar."



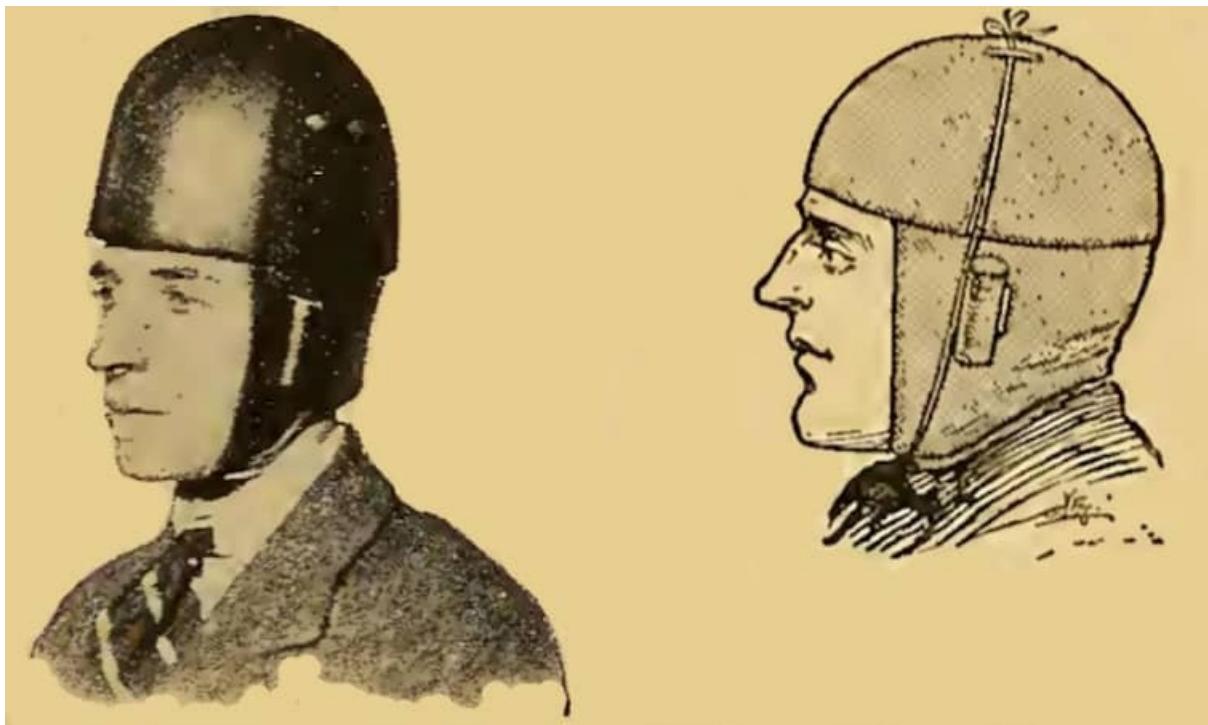
"One of our artists at work: At every important motor cycle meeting or trial, there is generally something of interest in the way of 'gadgets' to be found on the various machines. In this instance our artist has found something on an Indian worthy of recording."

"INTERNATIONAL TOURING ALLIANCE: A conference of touring organisations was recently held in Paris, and an inter-national alliance has been founded which will facilitate the way of motor cyclists touring in foreign countries. The head-quarter will be at Brussels, the secretary being M. Seavt, president of the Touring Club of Belgium. The organisations associated with the movement include the Automobile Association and Motor Union; American Automobile Association; Touring Club of France; Touring Club of Belgium; L'Union Velocipedique de France; Cyclists Touring Club; and Touring Club Italy."

"ALCOHOL FROM THE SEA: It is said that there is practically an unlimited supply of power alcohol in seaweed."

"THE LATEST IN MASCOTS: A mechanical mascot in the form of a figure which bows and raises its hat is the latest thing in ornaments for the radiators of cars."

"A GREAT DIFFICULTY HAS BEEN experienced in obtaining regulation helmets for TT entrants. The ACU will be glad if competitors in past Tourist Trophy races, who have approved helmets for disposal, will immediately communicate with the secretary of the Auto Cycle Union, 83, Pall Mall, London."



"All competitors in the TT will be obliged to wear this type of safety helmet. In 1917 it probably saved the life of several riders who had spills." (Right) Not all helmets met ACU standards.

"A BROMLEY (KENT) MOTOR CYCLIST'S Douglas was stolen by a novel ruse. A stranger offered him £1 if he would examine a second-hand Douglas for sale at a local hotel, saying he had an appointment with the owner. Whilst the Bromley motor cyclist was trying the second-hand on the road, the stranger said he would try his friend's new machine. He rode off and has not been seen since."



"A lamp—and

windscreen. Years ago competitors in the London-Edinburgh sought for the biggest lamps possible; fighting shy of nothing in the way of bulk, so long as the light was effective. In these days of efficient electric lighting dynamos and mag-dynamos the greatest worry of night riding is to a big extent eliminated."



"LAST YEAR WHEN THE LONDON-EDINBURGH run was resumed after a long interval, an innovation was made by eliminating the return journey...The scheme is a good one, especially when applied to these holiday week-end trials, for the entrants may wish to tour home again pleasantly, and to dally by the wayside where the scenery is attractive. Physical and nervous strain is considerable after the first fifteen or sixteen hours driving, and in consequence the inclusion of a monotonous main road return journey of three or four hundred miles at a very short interval after the completion of an outward journey of the same length constitutes a test of staying power more severe on man than machine. To the modern machine an endurance run over the classic London-Edinburgh route presents no difficulties whatever, and even the London-Land's End route of pre-war days was not abnormally troublesome. However, the elimination of the return journey allows the severity of the outward run to be increased...This year the route, to use a colloquialism, is considerably 'gingered up', and any rider whose machine makes an unflagging ascent of Kirkstone Pass, after some 300 miles of steady and continuous running may be reasonably proud....'It is highly desirable that competitors in this year's London-Edinburgh equip their machines with magneto cut-outs for the descent of Kirkstone Pass,' writes Mr WH Wells, captain of the MCC, who has just surveyed the course. 'Without a means to cut off the ignition on the descent into Patterdale, it will not be possible to

use the low gear to full advantage for braking purposes, and those who depend entirely on their brakes may burn them out...



"The 1920

London-Edinburgh Run, a 400 miles consistent driving test—a new route including the famous Kirkstone Pass in the Lake District. Non-stop sections: A, Ambleside to Patterdale; B, Moffat to source of the Tweed.

At eight o'clock last Friday evening the first of the 316 starters [out of 382 entrants] was despatched on his 400-mile journey by Mr AV Ebblewhite, amidst an enthusiasm possibly unsurpassed in any London-Edinburgh run. [They went at 30-second intervals and were scheduled to ride at the speed limit of 20mph. So, as the Blue 'Un pointed out, by the time the last cycle-car left Highgate, the leading solos were 60 miles north.] Fine weather prevailed for the opening of the trial, which proved, as was anticipated, the best supported and certainly the most interesting ever held. The climbing of Kirkstone added incident to a run which had of late years, with the reliable machines obtainable to-day, developed into a featureless twenty-four hour ride." The field comprised half a dozen ABCs, a dozen Ajays, a brace of Acmes, an Allon, a quartet of Ariels, a Beardmore-Precision, six Blackburnes, seven Broughs, two Beezas, a

Bradbury, a Carfield, two Chater-Leas, two Clynos, five Coulson Bs, an 1899 De Dion, 13 Douglasses, Diamond, a Dunlop, a Duzmo, an Enfield, 19 Harleys (14 of them outfits), an HR, five Hendersons (only one of which was a solo), a Hobart, two Hoskisons, six Humbers, 10 little Indians, an Invicta-JAP, six Jimmies, three Lea Francises, two Levises, 14 Matchlesses, a Mabon, three Metro-Tylers, three Martinsyde-Newmans, four New Imps, a New Hudson, a New Scale, 12 Nortons, two NUTs, an OK, three Paragons, two P&Ms, a Radco, four Rovers, four Reading-Standards, three Rudges, a Royal Ruby, three Rexes, seven Scotts, 19 Sunbeams, 32 Triumphs, two Versuses, seven Woolers, two Wilkins, 15 Zeniths and 20 cycle-cars. It is becoming quite customary to begin a report of this popular event of the Motor Cycling Club by stating that the entry was a record one. When the list of those competing first totalled over 200 it was thought that the trial was unwieldy, and this year, when the entries amounted actually to 381, there were misgivings as to whether so



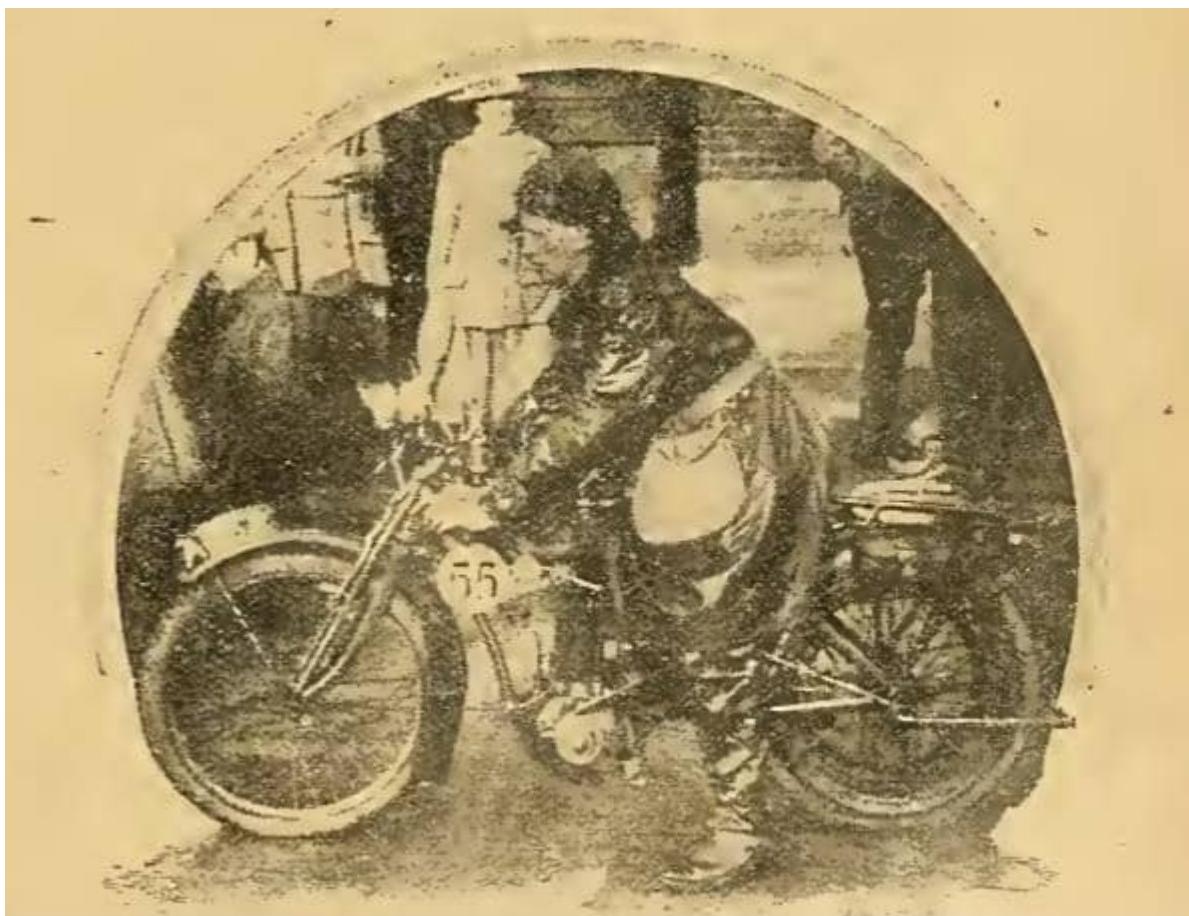
The piece de resistance of the 1920 London-Edinburgh Run—the summit of Kirkstone Pass. The steepest section was 1 in 4.

large a number could be conveniently handled on the road. In practice, however, the run went off extremely well, and was even a greater success than its dozen predecessors. The start took place on Friday evening in glorious weather, and there seemed every prospect of a fine run. The Metropolitan police were splendid as usual, and the huge number of riders was despatched without a hitch...Arthur Candler, one of the early hon secretaries of the MCC and founder of the Edinburgh run, lode a 3½hp Rover...Quite the most interesting from an historical point of view of all the machines present was BCF Fellowes's 2¾hp De Dion, the engine of which was dated 1899. On the tank was the Latin motto *ne fronti crede* ["trust not to appearances"], and a three-speed Armstrong gear was fitted. This wonderful engine pulled its rider right through to the finish...Each man was timed out by Mr AV Ebblewhite, while the official cars were driven by two old-time' competitors, Messrs J van Hooydonk and WH Wells, the latter carrying Mr FT Bidlake, the timekeeper at the finish...To an old participant in this event, two stretches of the run seem longer than the others—the night drive to Grantham and the last stage of all. To average 20mph in the daylight is easy, but to maintain this average in the dark, even over an excellent and easy road, is somewhat of an effort...We set out from the first check [at Biggleswade] in the glorious starlight night with a batch of half a dozen machines just ahead, including the three new Metro-Tylers...They are very neat-looking mounts, which ran most consistently...Our immediate companions were a group of members of the Public Schools MCC, who all rode together, and of these JDN Dickson Hill (5hp Zenith)...took a corner too fast at Gonerby, just after the breakfast stop, as he



"At Moffatt: V Gayford (4-5hp Zenith), LT Gibson (5-6hp Zenith) and EMP Boileau (3½hp Scott) checking."

took a corner too fast, colliding with a heap of stones...The next check was at Doncaster, and outside the garage there was mounted an ancient high bicycle, and under it the words 'disqualified, arrived too early'. For the early comers the sun rose before reaching Retford, but the clouds soon hid it, and the run was continued in cold dull weather with a rising south-westerly wind. HB Browning (3½ hp Scott), who burst a cover outside Doncaster, found a friend in need in the shape of a fireman. This excellent sportsman ran to the fire station, cut off a piece of hose, slit it down the centre, and thus improvised an excellent gaiter, and when offered payment refused it, saying he was a fellow motorist and drove a 60hp fire engine...There was some very rough road north of Doncaster...the wind, which had hitherto been only tiresome, became really trying...the dust was so appalling that we also prayed for a shower of rain, and wished that the excess of tar encountered in Hertfordshire had been directed to this part of the world...The Scott on which one member of our staff was travelling acquitted itself well, but Kirkstone proved its real worth...its approach is narrow, and right in the village of Ambleside, and we had to take it with a non-competing car drawing a trailer full of petrol cans partly blocking the fair way. The low gear was engaged at once, and kept in as the engine roared its way up the numerous steep pitches and round the easy bends. Once we changed to top, then up and up the Scott soared. Then came a fast stretch over a falling grade, and afterwards the final 'struggle' round a sharp bend and the worst was



"This machine, which is over a score of years old, has its original steel bushes. Its owner, BFC Fellowes, made a good run as far as 'The Struggle' on Kirkstone, and after a few minutes' rest finished the hill successfully."

over...Triumph and Sunbeam stood out among the best performances in the solo section, and Blackburne riders, too, though not fast, toured up with apparent ease and comfort. The Scott riders did well almost to a man, but their radiators were observed to be steaming in several instances. Boult on a Norton with Philipson pulley made a most meritorious ascent, passing three-speed mounts whose riders were footing or running alongside. Fleetwood we singled out as the best ABC rider, though all did well. When the sidecars arrived in bulk, rain was falling, thickly, and the surface was getting badly cut up. Bridgman (Indian sc) was sandwiched among the solo mounts, and it is doubtful if any competitor made a better climb up the steepest stretch at the top. Wright (Henderson) was good, also Nott (Matchless), whilst Temple (Harley-Davidson) was so fast that in the thick mist he was obliged to keep his electric horn going to clear the way...Congratulations to Jefferys, the one-legged rider of a Norton, who got up very comfortably...Once over the crest of Kirkstone (1,500ft up) there followed a drop into Patterdale, the atmosphere becoming clearer and the scenery more observable. ..Colliver was greatly pleased with his Indian Scout, while that best of sportsmen, Applebee pere, was delighted with his Levis. The new ABCs were a great contrast to the early models seen in last year's run, and had wonderfully clean crank cases. The old stagers, Triumphs, Ariels, Zeniths, Douglasses, Lea-Francis, Humbers, etc were doing well, and many of the newcomers, the Metro-Tylers, Coulsons, ABCs, Precisions, Duzmos and the like, were establishing their reputations. The worst of the run was now over, and the going was easy to Carlisle, after which the John-o'-Groats route was followed to Beattock. At Moffatt



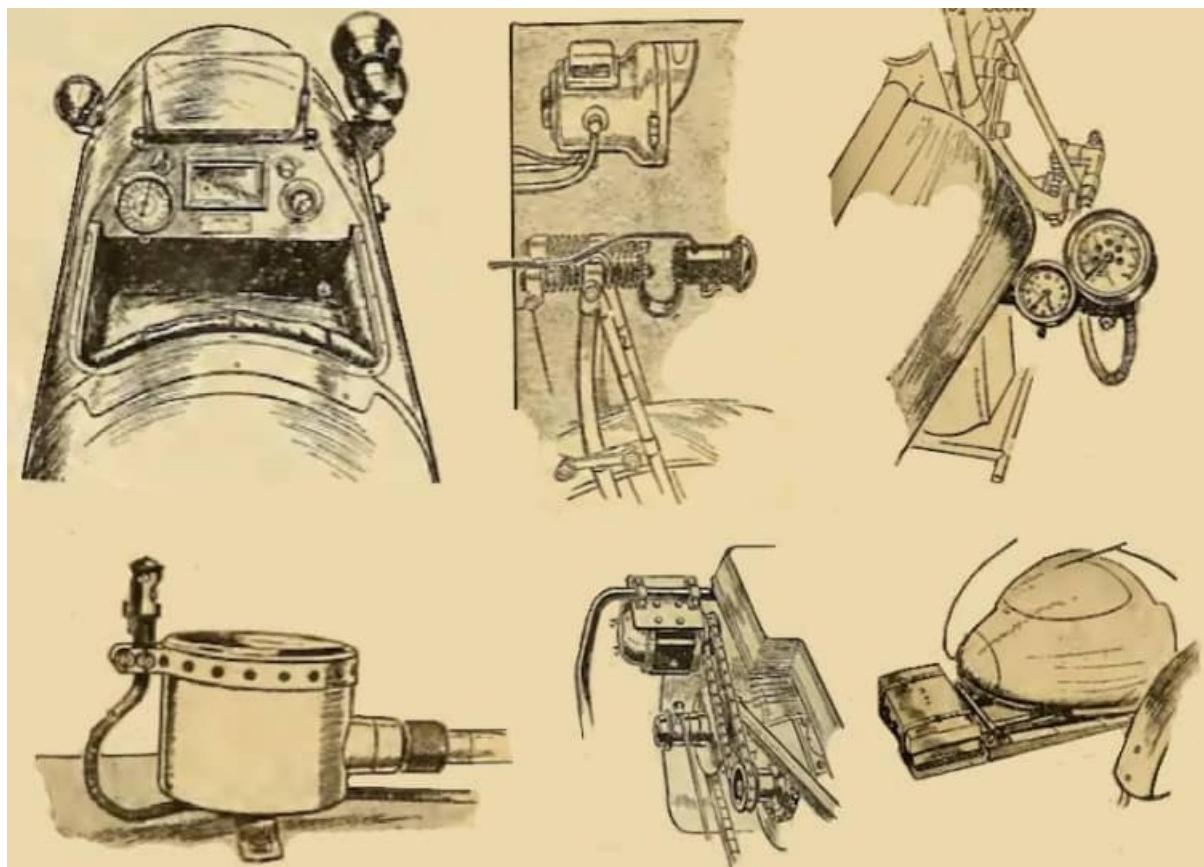
"On 'The Struggle', Kirkstone. The public, and riders too, do not realise the amount of work entailed in organising a trial such as the London-Edinburgh, when nearly 300 motor cyclists alone participated."

an excellent and much appreciated tea was served, and then followed the last non-stop section. Why this was chosen no-one knows. If Kirkstone Pass is the worst graded road in England, the Devil's Beef Tub Pass is the best graded road over any British or Scottish pass. The wind blew helpfully up the hill, as it did up Kirkstone, and the competitors sailed up and cruised down the other side in comfort...E Seymans (5hp Zenith) was very silent, and the easy beat of the Blackburne engines could be recognised from afar...The Brough machines had a very pleasant hum...The beat of BFC Fellowes's old 2 $\frac{3}{4}$ hp De Dion engine reminded one of other days, but he was still going strong...Lt Kidston (3 $\frac{1}{2}$ hp NUT) made a silent ascent, and RA Bonner (2 $\frac{3}{4}$ hp Douglas) and J Watson (4hp Harley-Davidson) ascended at speed. JO Barclay (Reading-Standard) seemed very highly geared, but was ticking over with an easy throb...Liberton was fixed as the end of the trial, as there was a procession through Edinburgh which would have caused serious congestion. After the finish the competitors proceeded at leisure to the Waverley Market, a huge building where the Scottish car show is held....out of 316 motor bicycles and sidecar outfits 222 finished.

Echoes of the Edinburgh run.

Though sidecar passengers appeared to travel in much greater comfort than before, many owners had not cultivated the art of travelling light, and 'excess luggage' was very noticeable...One enthusiast, S Marshall, set out on a 1 $\frac{1}{2}$ hp Dunlop scooter. He did not arrive at Edinburgh...Another enthusiast, T Fawcett, having had trouble with his machine on the way to London, bought a new Invicta-JAP in a small town en route, and, arriving late, was allowed to start after the cars—he completed the journey...Broken sidecar chassis were more numerous than one expects on a 400-mile run—DH Noble (10hp Reading Standard) abandoned his attachment near Doncaster...JR Robertson-Brown (10hp Henderson) and GP Stuart Clarke (7hp FN) both suffered from bad petrol bought on the road, which left a resinous deposit...JW Wills (2 $\frac{3}{4}$ hp Verus) started with his clutch out of action, but succeeded in reaching Edinburgh...When passing through one town on the Great North Road, on quite 60% of the machines the rear

lamps were out. A reader who discussed the matter with a sporting policeman probably saved 'official'



"Instrument board and windscreens of the Delta sidecar. Emergency electric head lights on one of the Metro-Tyler machines. The speedometer and watch mounted on a cross-bar at the side of the tank of a Verus two-stroke. Electric light for an Indian's speedometer rigged up with the aid of a strip of Meccano and two small bolts. The CAV dynamo and Whittle belt drive on an 8hp Zenith."

action by interesting the officer in the run...The performance of BFC Fellowes, of Nottingham, was noteworthy. A good deal of interest was evinced in his 'built-up' machine. The engine was a twenty-one year old 2½hp De Dion, in which were the original steel bushes. It had a detachable cylinder head and an automatic inlet valve. The carburettor was an old type B&B, and the magneto a Simms. The drop-backed frame was of modern type, and, fitted with TT bars and painted a bright yellow, picked out in black, the machine looked very attractive. Rigid forks were fitted and a three-speed gear in the back hub. Such a veteran machine could hardly be expected to make a clean ascent of Kirkstone Pass. The bottom gear was 8 to 1, and although Fellowes konked out twice on the way up the Pass, he managed to restart each time with the aid of a little assistance. Fellowes made the run from Nottingham to London, and London to Edinburgh without incident. Returning to Nottingham, however, he had the misfortune to break his front down tube of the frame...It is with great regret that we have to announce the death of JDN Dickson Hill (5-6hp Zenith) at Ponton. After leaving the first breakfast stop, he made a good ascent of Gonerby Hill, but unfortunately was travelling too fast to take a corner properly, and crashed into a wall. He was unconscious when picked up, and was eventually conveyed to Grantham Hospital, where he passed away. It would seem that his accident was chiefly caused by inexperience and want of care, but it is sad, indeed, to think that the motor cycle pastime has

been robbed of so enthusiastic a young sportsman. Mr Hill was learning motor engineering at the Bleriot Works, Addlestone."

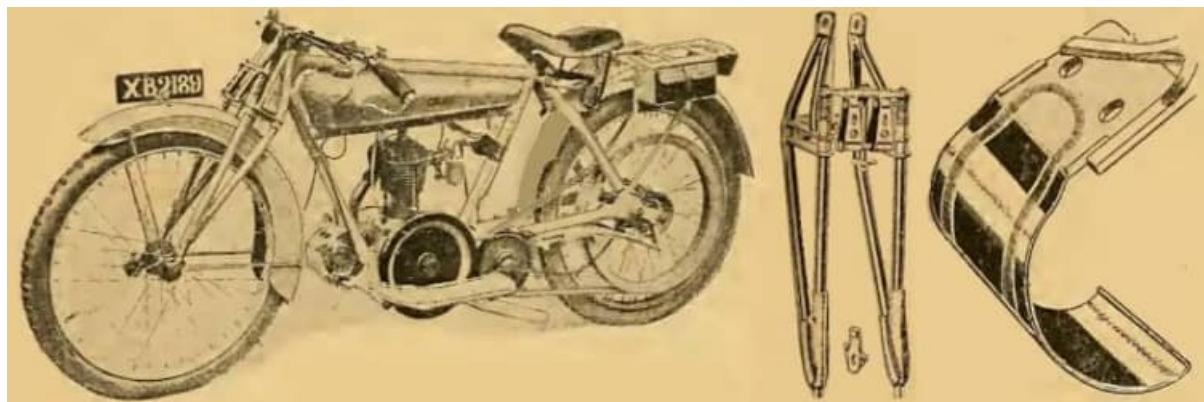
WIZARD O'DONOVAN WENT TO BROOKLANDS with a 3½hp TT chain-drive Norton combo and picked up 14 records including the 50-miler, where he beat the 57min 9.8dec set by HC Newman (Ivy) in 1913, completing the 50 miles in run in 56min 32.6sec (52.48mph). Wizard also set 750cc and 1,000cc records at 100 and 150 miles, all of them at around the 50mph mark.



"DR O'Donovan and the 3½hp Norton sidecar with which he recently broke several records at Brooklands."

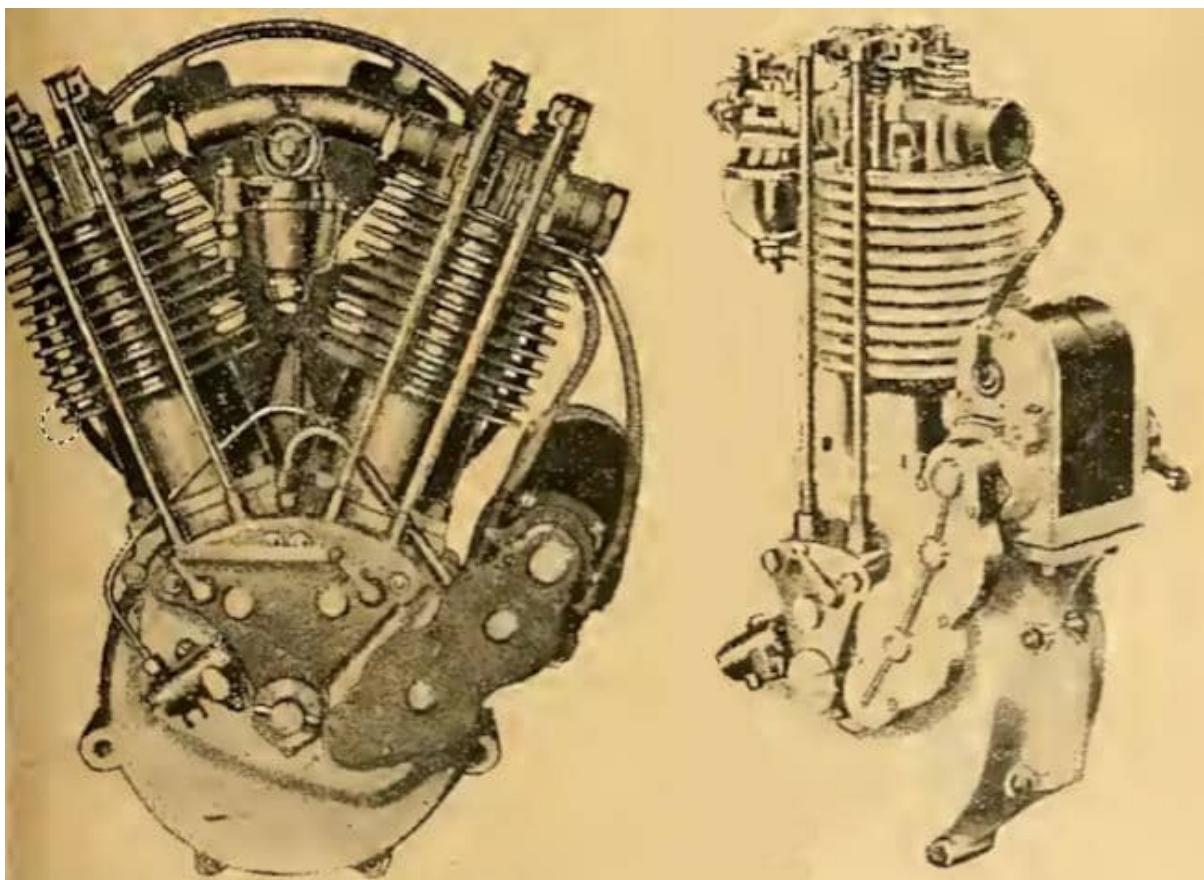
"A NEW MODEL 2¾HP COULSON B HAS recently been placed on the market. It is a most attractive machine, finished in French grey and blue. The distinctive Coulson streamline tank is retained, and a Capac carburetter and a Sturmey-Archer two-speed countershaft gear are incorporated, the gear box being mounted on an aluminium plate on the bottom bracket. A magneto guard of ample dimensions has been added. A new design front fork is now fitted. The movable portions of the fork bearing the front wheel spindle slide in bronze bushes contained in the front members of the forks, which are packed with grease, while at the point where the slides enter the front members coil check springs are inserted. These two members are suitably

bridged, and are connected by means of links to short leaf springs anchored to the fork crown. It is perhaps well to advise readers who are not familiar with Coulson B motor cycles that they incorporate in this model an efficient spring frame, using quarter-elliptic leaf springs under the chain stays."



"The two-speed 2 3/4hp Coulson B—a new model embodying several improvements, including the newly designed fork and a substantial magneto guard."

"TWO AMERICAN POWER UNITS, new to British motor cyclists, will shortly appear in this country. Known as the Lake engines, there will be two sizes, a single of 570cc and a V-twin of 1,140cc, nominally rated at 5-6hp and 12-15hp respectively. In both engines the same size cylinder is used, viz., 85.7mm bore and 99mm stroke, and detachable cylinder heads, overhead valves, and mechanical lubrication are their salient features. The lubrication pump (which is attached to the outside of the crank case) has a controllable stroke, and forces the oil via the front cylinder to the moving parts of the engine. Phosphor bronze bearings are used for the small ends of the connecting rods, roller bearings for the big ends, and ball bearings for the crankshaft. Constructed of tubes, with steel tips, the valve push rods are said to be very light, while the rockers and gear wheels appear to be well designed."



"An overhead valved twin engine of American design that is shortly to be marketed in this country. The Lake single cylinder with overhead valve mechanism. Its capacity is 570cc."

"SIR,—THE LETTERS UPON SPEED WOBBLE have been of much interest, as evidenced by the following, which is perfectly true. At a certain public school the proud possessor of a brand new Norton was asked if he ever had a speed wobble. His reply was no, but he could easily get one by paying extra.

'Norton', Lichfield."

"SIR,—YOUR CORRESPONDENT 'AG' states that he has attained the speed of 65mph on an absolutely untuned 4hp machine. If this remarkably fine machine were thoroughly tuned, he might put 10 or 12mph on to this speed, then, if he cared to compete in the next speed trials, some of our better known speed 'aces' would have to look to their laurels. In comparison with the above, the performance of 'LR's' big 7-9hp Indian, which can only do an equal speed, although carefully tuned, and on a picked road, is quite insignificant!

'Limit', Rugeley."

"SIR,—I HAVE RECENTLY NOTICED among your correspondents a great tendency to deplore the passing of the sporting single-speeder. Many have sent in suggested designs of more or less merit, but I am sure all will regret the passing of the Martin motor cycle. I recently rode and owned a 2½hp single-speed; it was everything a rider could want—light, strong, handy and simple. It could 'twist the tails' of a great many Yankee omnibuses on the level, and gave next to no trouble. The high prices people are willing to pay for the second-hand sporting grids of early date show what an enormous sale there would be for the new 'buses.

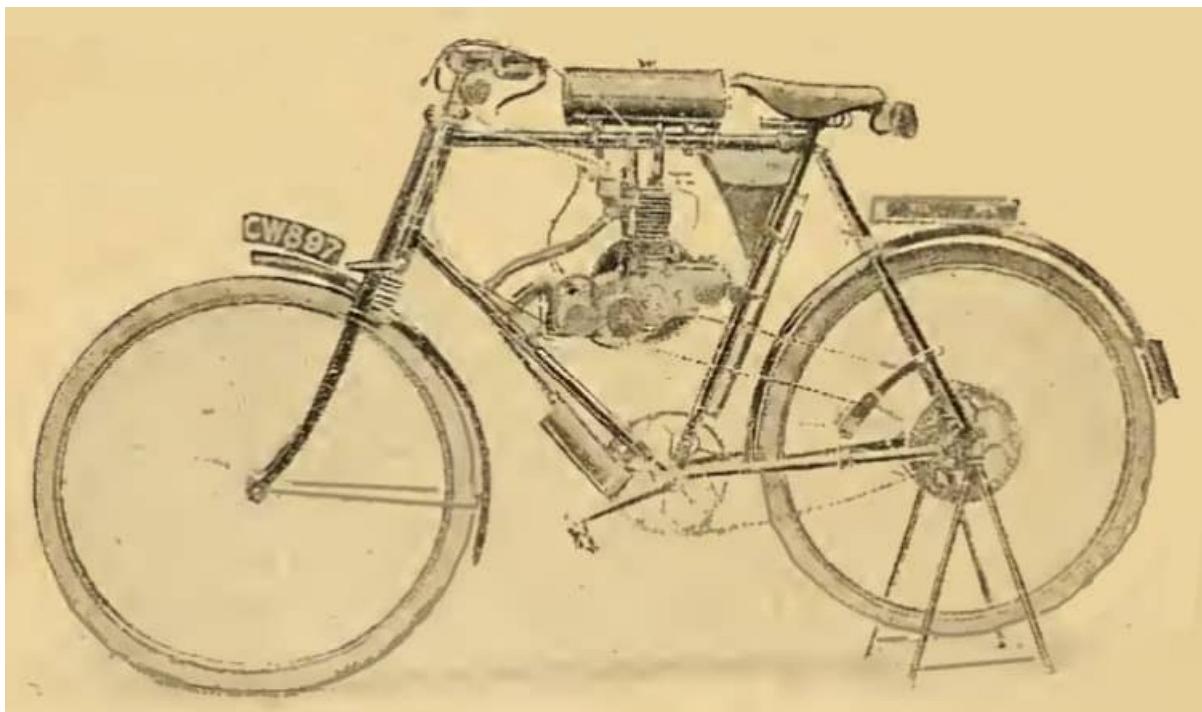
'Swallow', Purley."

“SIR,—A FEW WEEKS AGO I READ in your journal a letter from a correspondent on the speed of a hare, and I thought the following experience might be of interest. While the guid wife and I were having our usual week-end jaunt, we suddenly encountered a small pig, which had evidently strayed from the farm. Owing to the prevailing high price of porkers, and the impecunious state of the family exchequer, our sty was empty. The wife and I exchanged meaning glances, but the little rascal must have sensed our felonious intention, as he did a miniature hairpin turn, opened out the throttle, and was off in a flash. We gave chase, and when my ‘Try-some’ combination was getting in the neighbourhood of about three figures per hour (guessed, as we were speedometerless for afore-mentioned reason), the object of our desires was about holding his start. His topographical knowledge of the locality was excellent, and just as we thought the prize was nearly in the toe of the sidecar the little porcine quadruped blighted our hopes by executing a quick left-hand turn, followed by a fine nose dive under the farmyard gate, giving a derisive flourish of his caudal appendage as a final. Usual disclaimer.

‘Zummerzet’, Minehead.”

“SIR,—IS IT NOT TIME THAT motor cyclists insisted on the ACU and the AA taking up this question of the police and their petty tyranny on the road? Not only police traps, but now a new form of petty aggravation is arising, and we have police stopping one to measure number plates, examine silencers, and measure the size of letter on the number plates. In a word, motor cyclists (as well as car owners) are being badgered for no reason at all. It is beyond a joke, and surely the associations that profess to look after our interests could make a strong protest to the Home Office. Personally, I do not mind being stopped for my licence, but when it comes, as it has this last week, to being held up several times in a day, and kept delayed from one’s journey for anything from twenty minutes to half an hour, whilst police play about with measure and rule, and take copious notes, it becomes a nuisance. No other traveller is subjected to such petty tyranny, and a strong protest should be organised at once. It is no good waiting for months, until, like police traps, the thing becomes a custom to which we meekly submit.

(Rev) RC Measures.”



“An ingenious motorised bicycle: an Auto-wheel engine carried in a standard cycle frame is the

basis of this neat little machine. No structural alterations are made to the cycle other than a wider pedal bracket axle. Druid forks were fitted as a luxury. The gear ratio is 11 to 1, and the chain wheel is clipped on to the coaster hub like a speedometer pinion. The conversion is the work of Mr H Brown, of Nelson (Lancs)."

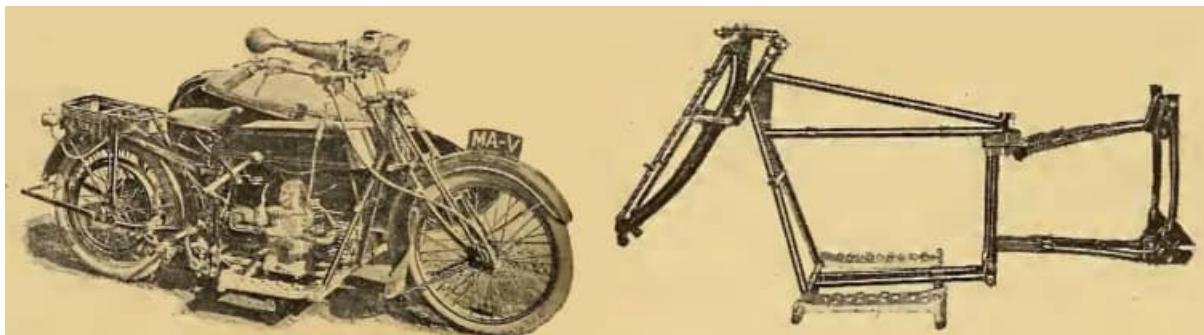
"NO FEWER THAN 12,769 GALLONS of benzole and toluol were exported from this country last month. In April 1919, the figure was 5,199 gallons...The late Mr Dodge (of Dodge car fame) owned a 30mph motor yacht which consumed 150 gallons of petrol per hour, enough to take the average sidecar 10,000 miles."

"ACU RALLY AT KNUTSFORD: Two hundred and fifty members representing eleven different clubs were present at the rally and reunion of the North-Western Centre ACU, held at Knutsford Heath on the 23rd ult. A large crowd of spectators and motor cyclists were present to watch the arrival of the various clubs. Eleven individual prizes were awarded for smartness, ingenious device, oldest machine, and other classes."

"ON THURSDAY, MAY 27TH, FA MCNAB, astride a 2 $\frac{3}{4}$ hp Wooler, successfully broke and established several records. In Class B for 550cc machines, he raised a speed of the 350 mile record, previously held by RN Stewart (NSU), to an average of 42.86mph, and created new records covering a distance of 400, 450, and 500 miles, whilst in that same class the eight and nine-hour records previously held by Stewart were also broken. His successes were also extended to the 500 and 1,000cc classes. In the former he established new ten, eleven, and twelve-hour records at an average speed of 40mph, and in the latter class he raised a speed held by HA Collier, on a Matchless, to 40.60 and 40.52 respectively in the twelve-hour and 500-mile records...An additional oil tank was fitted in order to reduce the number of halts...McNab's speeds also take...the 450 and 500-mile records for the 500cc class, and the twelve-hour and 500-mile records in the 1,000cc class...Such results demonstrate the successful development of the 2 $\frac{3}{4}$ hp flat twin."



"A record in post-war record-breaking. FA McNab at speed on a 2 $\frac{3}{4}$ hp Wooler. He broke and established sixteen records in twelve hours."



Made by the Viaduct Motor Co of Broadheath, near Manchester, the Ayres-Layland featured a duplex frame with leaf-sprung rear suspension, powered by a Coventry Victor flat-twin. "The large tank is of the saddle type, completely enclosing the top tube." This, let it be noted, was almost a decade before saddle tanks became common.

"IT IS STILL QUITE ON THE CARDS that the sidecar may ultimately vanish," Ixion warned. "This assertion will strike many readers as akin to blasphemy, and I will explain that I am not speaking of to-morrow or the day after. Let me illustrate. At the present moment I know of a certain cycle car which can do 60mph without hustling itself, and holds the road quite prettily at this gait. It will cost a little more than the modern sidecar de luxe, but not a lot. When the horse finally becomes extinct and our roads are reconstructed, we shall certainly get special motor roads, on some of which the speed limit will not be less than 40mph. Does anybody pretend that riders will select lopsided three-wheelers for such high speed work when they can buy a road-holding four-wheeler at the same price? Consequently I regard the ultimate demise of the de luxe sidecar as certain, if distant. We shall come to regard the motor bicycle as a solo machine, pure and simple. If in the future it survives in its present form, we shall instantly recognise that it is absurdly heavy, and that its range of gear ratios is excessive. Light machines with a high bottom gear will be evolved. Of course, it may be that other tendencies will bring about these effects long before the sidecar is superseded; the tide is already setting in the indicated direction."

"SIR,—I RECENTLY OVERTOOK many outfits, in the sidecars of which ladies were seated. I might have opened out and gone ahead. I did not do so; I was out for a comfortable, easy ride. The result was they must have been smothered with dust. I ask your readers, was the obligation upon me to open out, or upon the driver of the sidecar to slow down and let the dust settle? The issue is this: After overtaking—particularly ladies—should a speed be maintained to allow dust to settle, or is a rider justified in simply keeping ahead, the pace being determined by the overtaken?

'Hugh', Blackwood."

"SIR,—THERE IS A PREVAILING OPINION among those private motor cycle owners who have never tried one, that a 2½hp two-stroke motor cycle is not powerful enough to pull a sidecar with an adult passenger. I recently bought a 2½hp Alldays-Allon, and I attached a canoe sidecar to steady the machine on the grease, as I had to ride to business daily—a matter of fourteen miles. To my surprise, I found I had ample power to carry a 12st adult, which I have done very often; also, I could climb a gradient 1 in 6 on top gear, provided I had a good start, and travel on the roads in London at 20 to 25mph. My weight is 13st 12lb, and with the roads as bad as they are in London at the present time I think this is a remarkable performance, because the machine is only a toy, as far as size is concerned, though it is built very strongly. Personally, I think it is the most perfect little machine of its class on the market. The usual disclaimer.

CWG Bone."

“SIR,—’IXION REMARKS ON THE PREVALENCE of baby two-strokes, and has seemingly meditated and wondered concerning this same. The reason, I think, is that they are a sound proposition. Cheap (as things go nowadays), reliable, and practically foolproof, my own experience may be of interest. I am a pre-war motor cyclist, and have possessed various machines, from a 1½hp front-drive Werner to a modern TT solo machine of a leading make, which I disposed of during the war. During a spell of hospital in 1918 I became possessed of a two-stroke with a Villiers engine. The outfit was assembled by a firm called the Monopole Cycle Company, of Coventry. The Villiers engine was vaguely familiar. When I bought it, I confess I regarded the whole concern as a huge joke. But when I began to ride it my opinions very soon changed. The machine has a fixed pulley, but it is flexible to the last degree. It never fails on any ordinary road hill, nor on a great many extraordinary ones. It has its limits, of course, but it pulled me from Buckinghamshire to Cornwall during Christmas, 1919 (London to Exeter competitors will remember the weather) and back again, and did not fail on any hill. I rode via Okehampton, Launceston, and Bodmin. I use it perpetually here in Edinburgh, and three weeks ago I ran from here to Cromer and back during a week-end. My repair bill so far has been 25s for an overhaul job, which I was too lazy to do myself. I can honestly say that I have had more fun for less trouble out of this little machine than out of any of my others, always excepting the 1½hp Werner. But some people would hardly call that fun. Ye gods! what days they were. I need hardly add the usual disclaimer.

‘Fourteen stone’, Edinburgh.”



“Cycles for the maimed: several motor-assisted tricycles and one electrically propelled four-wheeler on monocar lines were seen in Regent’s Park at the rally of cycles for war-maimed men, which was organised by *The Motor Cycle and Cycle Trader*.”

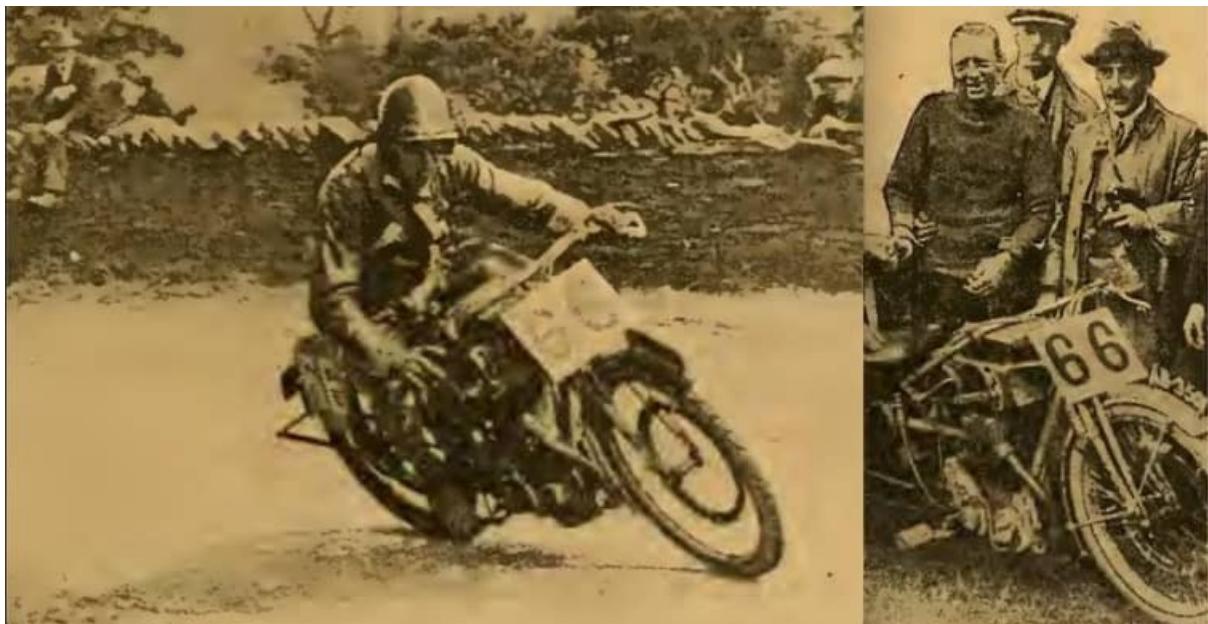
HAVING BEEN SO RUDELY INTERRUPTED by the unpleasantness with the Kaiser the TT was back, with a few changes. The start/finish and grandstand moved to the Glencrutchery Road site they have occupied for the past 100 years. The route was modified too, bearing left at Cronk-ny-Mona and round Signpost Corner, Bedstead Corner and the Nook to a wicked hairpin corner at Governor’s Bridge, finally arriving at the 37¾-mile course still in use today. A large scoreboard was erected, manned by boy scouts who updated riders’ positions as reported by marshals via a newly laid private telephone line. There were still two races, the 500cc Senior and 350cc Junior, but to encourage the development of lightweights the Junior included a class for 250s. The Motor Cycle donated a Lightweight Trophy for the fastest 250. Another innovation was the Nisbet Prize (named for a longstanding ACU chairman) which could be presented “at the discretion of the Stewards to the rider or riders who exhibit such pluck and endurance or such capacity to triumph over difficulties as to deserve special recognition”. A number of manufacturers, including Douglas, declined to enter, citing the need to concentrate on

maximising production to meet the booming demand for bikes. So it came as no surprise that entries were down. There were 32 Junior entries, down from 49 in 1914 and 29



From left: "JA Watson-Bourne, runner-up in the Junior. Cyril Williams won the Junior. RO Clarke came a creditable fourth on his Levis 250 and won *The Motor Cycle* trophy for what would become the Lightweight TT."

Seniors (down from 111); for the first time Juniors outnumbered Seniors. Determined to repeat its 1914 win AJS fielded six Junior contenders (two privateers also rode Ajays); there were also four privately entered Douglases, three Woolers, three Blackburnes, two Diamonds, two Manx-made Auroras, a Dot, an Ivy and a New Comet. Competing for the new Lightweight trophy were three four-stroke Diamonds and three two-stroke Levises. Having taken 1st, 2nd, 4th and 6th spots in the 1914 Junior AJS, with a new ohv four-speeder, was hot favourite to take the Junior crown. Among the AJS riders was Howard Davies who had finished second equal in the 1914 Senior on a Sunbeam. He later recalled:"Anyone would have said that 1-2-3 was a foregone conclusion for AJS in the Junior. In fact we fancied our chances so much that the firm entered me on a 350 for the Senior race...We had the legs of everyone in the race for the AJSs were exceptionally fast—later that year I did the flying kilometre at Brooklands at 80mph...the trouble was that the Junior developed into a terrific scrap between the chaps in our own stable and we were coming back to the start from all over the place!" In the event an AJS did win the Junior in the hands of Cyril Williams. That was despite breaking down on the last lap near Creg-ny-Baa; Williams long lead at the time gave him the margin the push his bike for the last three miles and still win. Five Ajays failed to finish; 2nd and 3rd places were taken by JA Watson-Bourne and JS Holroyd, both on Blackburnes and the next man home was RO Clarke on a 247cc Levis two-stroke. What's more Clarke crashed heavily on a left-hander near Keppel Gate (its now known as Clark's Corner) and had to refit his front tyre and kick the wheel back into shape to complete the race. E Longden (Dot) finished 5th, followed home by RW Loughton (Douglas), Gus Kuhn (Levis), HV Prescott (the only AJS to cross the line under its own power), FW Applebee (Levis), SH Haden (New Comet) and in 11th place PG Dallison (Ivy)—he was the last finisher, more than half the field crashed or broke down. Gus Kuhn and 'Pa' Applebee (respectively the youngest and oldest



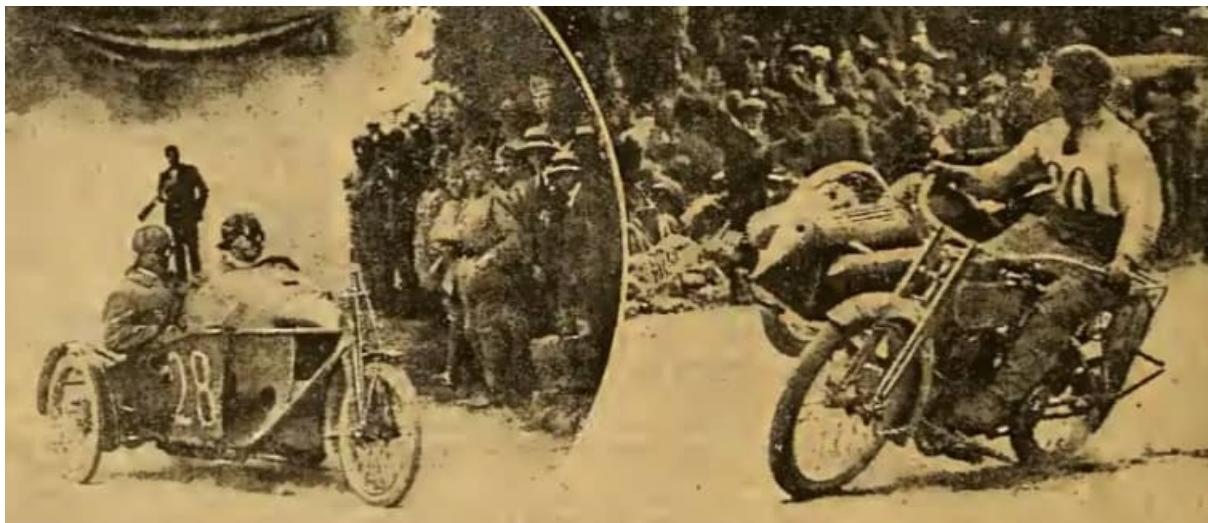
Tommy in action at the Gooseneck, followed by "A well-pleased trio: the Senior winner, TC de la Hay, with the designer of the winning Sunbeam, JE Greenwood, and AS Bowers, managing director of John Marston, Ltd."

competitors) were also 2nd and 3rd in the 250cc class, giving Levis a Lightweight hat-trick. There were seven marques in the Senior, four of which had factory backing. As well as AJS's cheeky 350cc entry there were no less than 14 Nortons and five each from Indian and Sunbeam. Privateers rode ABC, Douglas and Duzmo. Howard Davies had been snapped up by AJS following his 1914 TT debut when he was second equal aboard a Sunbeam, also making its Manx debut. Davies might have regretted his move to AJS because Tommy de la Hay won the Senior on a Sunbeam (at 51.79mph) ahead of Doug Brown on a Norton, WR Brown on another Sunbeam and NC Slater on another Norton. A brace of Indians ridden by HR Harveyson and DS Alexander were 5th and 6th, followed by two Nortons, a Sunbeam, two more Nortons, an Indian, and two more Nortons. George Dance made the fastest lap (55.62mph) on a Sunbeam before breaking down; he was later described as "one of the finest and surely the most unlucky rider the Island has ever seen". Only 14 bikes finished the race: like Davies' AJS, the two ABCs, the Douglas and the Duzmo were not among them. *There's a more comprehensive TT report in the 1920 Features section, with a great deal of other contemporary news and gossip including advise on how to win (or lose) a race and a solemn warning that "so far as Customs are concerned, the Isle of Man is considered by Great Britain as a foreign country, and a permit to ship must be obtained by every motor cyclist who desires to bring his machine back to England". PS You'll also find out which TT star won a single-horsepower gallop during TT week.*

"THE HOME OF CHAMPIONS: Herefordshire has need to be proud of its sons. TC de la Hay, this year's Senior winner, Eric Williams, the 1914 Junior winner, and Reg Brown, third in last week's Senior event, all hail from that county."

"A MYSTERY GERMAN MOTOR CYCLE: Who was the rider of an apparent post-war NSU seen on the Maidstone Road last week? It was a new model twin, with gear box and dynamo lighting."

"A MOTOR CYCLIST, CHARGED WITH reckless driving, was dismissed by the magistrate, as it was argued that even 50mph was not reckless driving if the driver had complete control of his machine."



"Scenes in the recent Circuit De Fontainebleau motor cycle race. (Left) A three-wheeler of unusual design. The Cyclauto, driven by Rouquet in the race. (Right) Verpault (Harley-Davidson), who made fastest time in the 1,000cc class, lifting his sidecar to facilitate cornering."

"SIR,—I READ SOME TIME AGO a letter from a correspondent asking if anyone had tried the Scientific American's tip for decarbonising, ie, with a teaspoonful of salt put in the cylinder. As I intended cleaning out my engine the other day, and thinking the Yankees may have made a discovery—apart from the fact that England was also in the late war—I tried it: result, nil!

AG Gill.

"SIR,—CAN YOU, OR ANY MEDICAL EXPERT, solve the following problem? Eastbourne, I believe, is one of the healthiest spots on the south coast, and its air particularly bracing for invalids and those generally 'out of sorts'. Yet this same air seems to have a very adverse effect on certain youthful motor cyclists of a class unfortunately becoming only too common nowadays. They spend most of the day riding up and down the front with open exhausts and the lowest of Brooklands bars: the machines, needless to say, are standard in every other respect. When they do stop, at a point invariably opposite the bandstand, where there is always a crowd, they loudly proclaim their ability to exceed 60mph. And, recently, I witnessed the extraordinary phenomenon of four up on a lightweight two-stroke. I am wondering if there is any cure for this form of mental derangement, or whether all these unfortunate sufferers will eventually be certified and vanish from a sorrowing world into an asylum for such cases. The world will sorrow, not for their loss, but for the very justifiable police activity which may be expected as a result of this alarming mania.

Not yet diagnosed, Eastbourne."

"SIR,—THE REMARKS OF ONE of your correspondents *apropos* the disgusting behaviour of some motor cyclists at fashionable seaside resorts are as deplorable as they are true. I have just returned from Southport, where exists a similar state of affairs to those at Eastbourne. Southport lends itself admirably to any display of the nature indicated—a fact which is appreciated. At this admirable place the knut seems to spend his leisure—very considerable leisure, too—in 'lapping' Lord Street and the Promenade in a praiseworthy conscientious manner. He leaves behind him a 'powerful' noise, smell, and impression, although it must be admitted that sighs of envy and surreptitious glances of admiration follow his retreating brilliance as well. Such futility and ostentation are incomprehensible when one recollects that fine stretches of 'speed' sand are available on the foreshore most mornings before breakfast. Most of the 'regular' machines are indifferently driven, and are obviously not intended for

serious work; indeed, I often saw an ancient Triumph stripped of mudguards, etc! Perhaps the most effective (?) performance I witnessed—it left me faint, almost—was that of a *blasé* youth who drove his two-stroke along Lord Street sitting *side-saddle* (greatly unconcerned), the while his admiring friends, with their hog-'buses, congregated in a group and effectually blocked part of the roadway. This was, however, eclipsed by a flapper of few summers and less scruples, who repeated the performance, riding through a denser crowd, the following evening! There was a policeman on point duty less than one hundred yards away who probably saw the above incidents. Apparently this conduct can go on with impunity, while *normal* motor cyclist get fined for incorrect numbers, etc. It makes one feel inclined to go back to the push-bicycle.

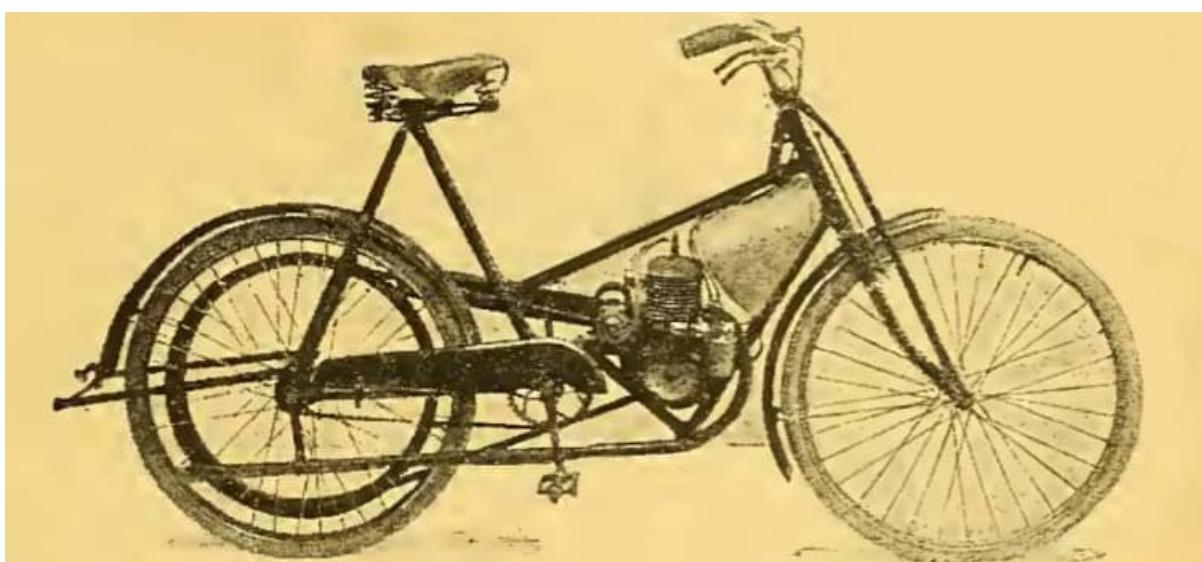
'Norton', Newcastle-on-Tyne.

"SIR,—HAVE ANY OF YOUR READERS had the following curious experience? Whilst riding a 2½hp Levis without the usual magneto chain cover, I was obliged to stop at the corner of some cross roads when I noticed that the magneto chain was no longer in position. I naturally concluded that it had come off at the moment of stopping and proceeded to look about for it, but the most persistent search failed to locate its whereabouts. A cyclist coming along the road I had just passed over produced the chain, informing me that he saw it come off about half a mile prior to the place at which I stopped. I had ridden half a mile without a magneto chain. The engine was very hot at the time, and the only reason I can give is that a piece of hot carbon on the cylinder head was sufficient to fire the charge on compression, but not sufficiently hot to cause pre-ignition.

AR Jones."

"SIR,—PERHAPS A LITTLE EXPERIENCE which befell me recently might be of interest to your readers. I was about to vault into the saddle of my countershaft machine, when my trench coat caught in the belt pulley and was dragged right round the clutch sprocket. I was pulled right down on to the tank, the engine pulling up dead, leaving me absolutely powerless to do anything. I tried to get out of the coat, but was too close to the tank to get my arms out of the sleeves. Then I tried tearing it out of the pulley, but with no effect, and I could not even move the bicycle backwards or forwards. I simply had to hang on until two passers-by came along and released me by removing the chain -case and turning the engine backwards.

Tranche De Vent, Shoreham."

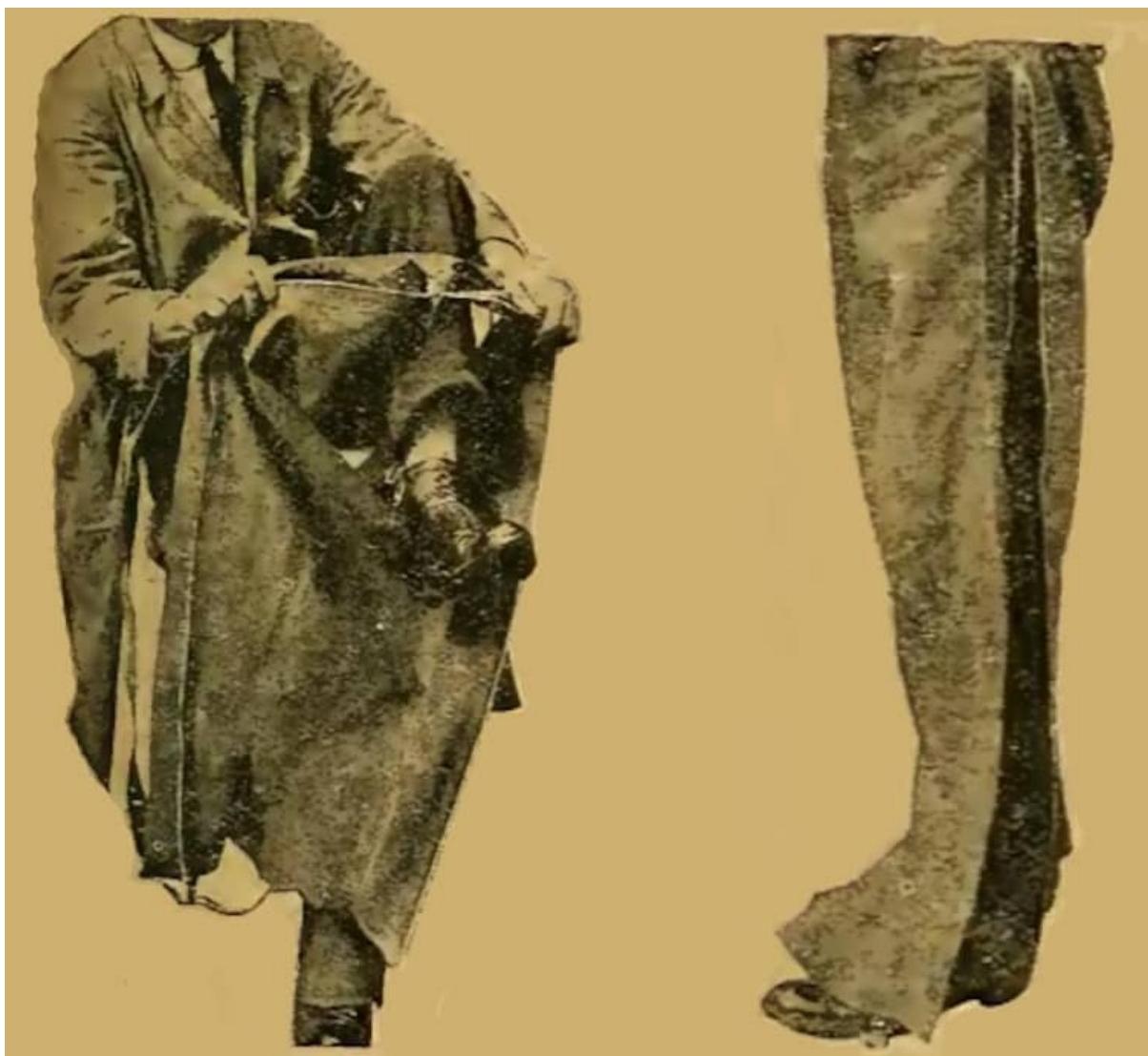


"Weighing less than 70lb, the the 187cc two-stroke Silver Prince is likely to attract a large number of cyclists of either sex who wish to extend their normal radius of action...We took the

opportunity of a short trial run on an experimental machine, and found it extremely flexible and easy to handle. In addition to this the engine is wonderfully well balanced, and appears to have ample power for all normal hills."

"THE CUTEST FITTING at the last car Olympia was a lightning metallic seam for side curtains shown on the Auster stand and fitted to a demonstration Rolls-Royce," Ixion reported. "I have forgotten the inventor's name [it was Gideon Sundback, who patented the 'Separable Fastener' in 1917], but I struck the seam the other day on the toolbag of a friend's 10hp Singer car, so the gadget is evidently being pushed. I suggest this patent seam is immensely applicable to motor cycling leggings. Its operation is simplicity itself. At one end of the seam is a metal tab; a tug on the tab rips the seam open from end to end, just like the ripcord of a balloon. A reverse pull on the tab stitches the seam lip again. If this gadget were applied to our leggings, we could shed them without threading our feet through the legs at all, and we could then wear golf or cricket shoes with nails in them. I hope this will catch the inventor's eye." *Within a few weeks Ixion felt obliged to add:* "Not long ago I drew the attention of motor cycling tailors to the possibilities of a patent metallic seam for leggings. I have since been informed that the seam was originally invented by a Parisian dressmaker for the benefit of chic demoiselles who wished to wear umpteen frocks per day. It served this purpose well, but when applied to motor cycling leggings by an English tailor in 1910, the metal used to rust, and the unfortunate rider had to be debagged with the aid of a tin opener. Having already plenty of personal enemies, I hereby retract my previous advice." *And then, a couple of weeks later...* "I never like eating my words twice over. I know they say the man who never makes mistakes never makes anything, and that if you do not occasionally change your mind, you will never change anything. Still, it does not feel nice; however, here goes. Some months ago I implored the trade to utilise the Kynoch lightning fastener for motor cycling leggings. Some joker informed me that he had done so years ago, and the metal seams rusted up so that he had to be extricated with a tin-opener. I withdrew my pleadings. Then Hamel's of Tamworth told me they had started to manufacture such leggings, protecting the seam with a fabric flap, though their experience was that it thronged on water. I got a sample fastener, and it has now lain on my desk for some while immersed in a jampot full of water. I do not know whether the modern edition of the fastener is coslettised, but anyhow it cannot be induced to rust; and readers may confidently buy them without adding a hacksaw to their toolkit."

"SOME time ago our contributor 'Ixion' expressed a desire for overalls which could be fastened quickly and surely, and at the same time could be put on and taken off without soiling the interiors, and eventually the rider's trousers. And we think he spoke for the majority of motor cyclists. We have received from Messrs EB Hamel and Sons, Tamworth, most excellent leg overalls, which fully meet these requirements. Their chief feature is the method of fastening by a patent seam made by Kynoch, Ltd, Witton, Birmingham. It consists of two rows of tiny metal steps which may be pulled together by a special clip; and so firmly interlaced that it would actually require a pressure of 250lb to separate them. A single tug at the clip end, however, and they 'rip' apart again as easily as tearing tissue paper. The metal is rustless and apparently indestructible; and the seam, when closed, is hidden from view by a flap. They are of the type which will cause our friend 'Ixion' to rejoice, since the opening extends from the bottom of the leg to the very top of the garment. Our illustration shows clearly how easy it is to withdraw the soiled boot without even touching the interior of the overalls. They are certainly the most practical garment of their type we have ever seen on the market, and, in our opinion, their success is assured."



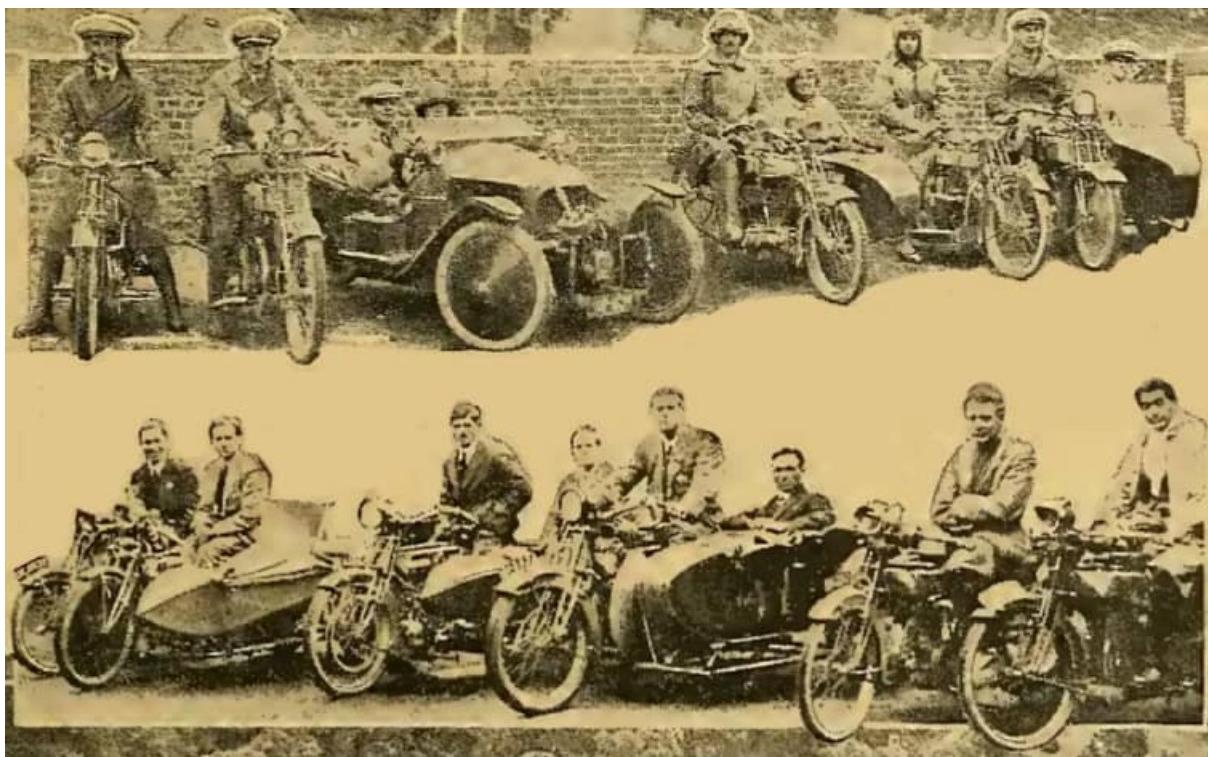
"Showing how the overalls may instantly be removed without soiling their interior. (Right) The patent fastener opened from top to bottom of overall."

HANDY ADVICE FROM IXION, apropos forms of salutation: "I fancy a Mumbles correspondent must be trying to pull my elderly and innocent leg. He complains that etiquette compels him to doff his cap to lady acquaintances when he is motor cycling. He finds the custom expensive, because his hands are generally oily, and he is a bit of a dandy where his headgear is concerned. Moreover, it is dangerous, as a wobble may develop when the hand is removed from the bar. Finally, a sportive wind may whisk the cap out of his hand and waft it over the cliffs. He wishes to ascertain my personal practice. I never experience any such difficulty. Not the least merit of the motor cycle is that it provides a plausible excuse for cutting undesirable people without their knowing you are deliberately avoiding them. I fear my tailor, for instance, more than ever I feared a machine gun; but if I am in the saddle when I meet him, I fix a distant eye on an imaginary old lady who is blocking the fairway 100 yards ahead, and hoot vigorously. The good man can thus proceed on his walk with pleasant dreams of the cheque which I have no intention of writing. The girl who has jilted you—on sighting her, you assume a grin of glee, crouch down, and scrap deliriously, abandoning her to the torturing suspicion that you never really loved her. The girl you have jilted—you cast her a very respectful and reproachful glance which comforts her without giving her the chance of demanding an awkward explanation or

attempting an unwanted reconciliation. Mother-in-law—well, ram her in the region of the bustle."



"NO FEWER THAN TWENTY-EIGHT TEAMS, representing clubs from all over England and Wales, fought for the honour of club champions last Saturday. The contest was the thirteenth of the kind organised by the Motor Cycling Club for The Motor Cycle Challenge Cup. From all parts of the kingdom motor cyclists converged on Tring, the starting point, the course used being the same as last year, and including several single-figure gradients with loose surfaces, and measuring slightly less than thirty-three miles. This circuit was covered three times, the competitors thus filing past the timekeepers, Messrs FT Bidlake and OJM Walker at the completion of each round. The contest was fought out with particular keenness—indeed, the enthusiasm appears to grow apace as the years roll by. Starting first at 1pm was the Coventry and Warwickshire MC team, the holders of the trophy, followed by the Motor Cycling Club. These clubs each hold two shares in the present trophy, and a win by either of them would have resulted in the trophy being won outright. But trouble befell one member of each of these two teams very early in the trial. At the end of the first round 17 complete teams were in the running for the cup,



"Provisional winners and actual winners of The Motor Cycle Challenge Cup in the MCC Team Trial. The upper photograph shows the victorious Leicester team, which has been adjudged the winner. The riders are: J Willcox (Rudge), A Wooding (Sunbeam), H Pole (Morgan), R Harris (Norton sc), WC Pim (Douglas), and W Chapman (AJS). In the lower group is shown the South Birmingham MCC team who, until the second checking of observers' sheets, were regarded as the winners. Subsequent examination by the MCC timekeepers revealed that one of the riders had exceeded the speed limit allowed. Reading from the left the riders are: G. Denley (Velocette), H Walker (Triumph sc), H Uzzle (BSA sc), HH Saddington (James sc), B Bird (2½hp Verus), B Kershaw (2¾hp Verus)."

which number was reduced to 11 on the second circuit, and further stops resulted in four learners completing the course of approximately 100 miles without a single stop. The clubs claiming this honour are undernoted in order of merit, the final classification being arrived at by adding the variation of each rider's times, the most consistent running naturally scoring. They were the South Birmingham MCC, 14min 51sec; Leicester & DMCC, 15min 10sec, Surbiton & DMCC, 19min 47sec; Worcester & DMCC, 22min 32sec. The South Birmingham MCC team were, until the second checking of observers' sheets, regarded as the winners. Subsequent examination by the MCC timekeepers revealed that one of the South Birmingham MCC riders had exceeded the speed limit allowed...The organising club showed a total error only 4min 40sec, and had not Sharratt been riding with his hands in his pockets when he struck a patch of wet tar and skidded, a different tale would have been told...Among the riders were the elite of the motor cycling fraternity. TC de la Hay, the Senior TT winner, was one of the successful Worcester non-stop team. G Dance (Sunbeam), who made the fastest laps in the Isle of Man the previous week, formed one of the Wolverhampton team, and JA Watson Bourne, this time on an Ariel, rode in the Sutton Coldfield AC team. Other TT men were Eric Williams, Le Vack, FA Applebee, Harry Collier, and Noel Brown. Together with most of the leading riders in reliability trials, it will be appreciated that those contesting the honour of club champions were



"The Bedford and District MC team all rode Triumphs. Here they are seen near Aston with S Crawley (solo) and J Cocker (sidecar) in the foreground. (Right) Members of the North London MCC team on Whiteleaf Hill. HI Williams (Rudge-Multi) and RW Greaves (7-9hp Indian sc.)."

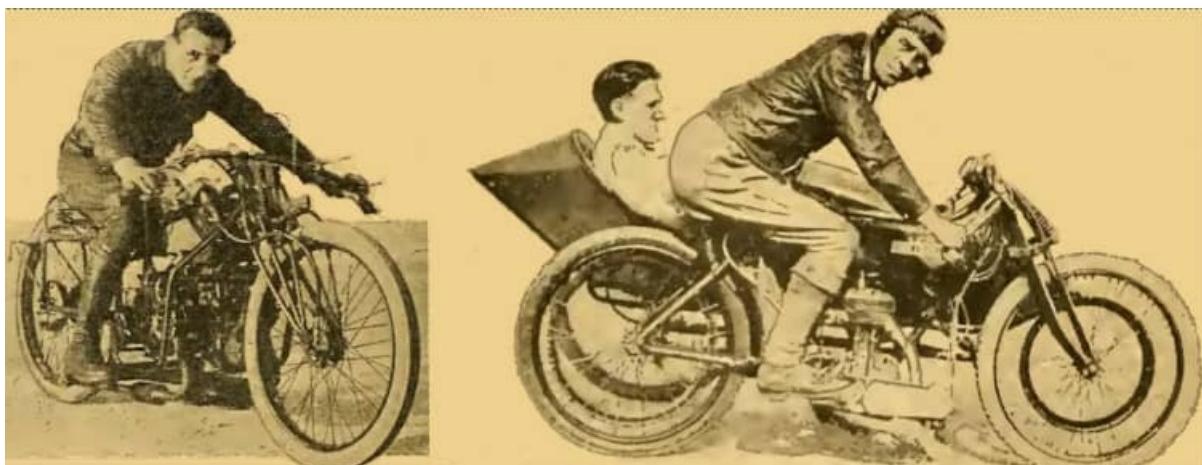
in every sense worthy of the claim. FW Applebee was this time a looker on. No 1 man was Sam Wright (3½hp Humber with Cox Atmos carburetter), captain of the Coventry team. A team trial would be incomplete without this well known rider, who has figured in the winning team more often than any other individual motor cyclist. All the 286 competitors got away well except the Public Schools MCC team, which did not mature, their places being taken by a late entry of the Gipsy MCC with a very strong team composed of AF Selby and AS Guthrie on Sunbeams, H le Vack (3½hp Duzmo), JA Masters (Harley-Davidson sc), SR Axford (7hp Indian sc) and EM Oliver (4hp Norton sc). Of troubles en route there were many. That was expected, but stops in the first few miles were not bargained upon. On Aston Hill—six miles—RE Pugh, Sutton (2¼hp Levis sc), broke a chain; at a bend soon after the summit, TR Gibbins, Coventry (8hp Acme sc), ran into a non-competitor's machine; WH Egginton, Birmingham (8hp Sunbeam sc) broke one of the new chains with which he had equipped his machine just to make sure! AB Chapman, Sheffield (Brough), sooted a plug at fourteen miles; SR Axford, Gipsy's (Indian sc), punctured—likewise Lloyd (model 4 Triumph). And so the weeding out process continued. One wondered how the ten competitors with only one brake were faring on the steep descents around Dunsmore...Keen to uphold their teams' record, the second lap saw one or two continuing on flat sidecar tyres, and quite a number gained non-stops by continuing when punctures occurred in the final lap. The hopes of the MCC were dashed by TS Sharratt (Indian) unfortunately suffering a dry skid when going fast on the bend approaching Aston Hill. He, like Gibbins, of Coventry, and others remounted and continued, though the rules provide that any competitor stopping shall there and then withdraw. One rider, who shall be nameless, clean baffled the numerous officials around the course, by passing on the first circuit with a flat tyre, and repassing next time with a hard tyre! The spectators imagined that the rider had accomplished a non-stop run, not so the wily observers! The Bedford team were



From the left: "H Poynton and E Stobart, of the Sutton Coldfield and N Birmingham AC, both on James sidecars, on the bend of Pink Hill. AB Chapman (5-6hp Brough sc), Sheffield and

Hallamshire MCC, leading FW Baker and P W. White, of the Cambridge and District MCC, both on Sunbeam sidecars. FA Applebee (Indian-Scout) and F Thorpe (2½hp Douglas), of the Essex MC team, and S Crawley (4hp Triumph), Bedford and District MC, on the hairpin turn into the Missenden-Wendover road."

unlucky in the second circuit. All the team, including Crawley, Hines, Collins, Cocker, Green and Rycroft, were riding 1920 model Triumphs, and made a great show on the hills, but Collins claims to have hit a cow which brought him down, but continuing he recorded a 'traffic' stop on his card. The judges, however, decided that a traffic stop is something different from a traffic collision, and his mileage, therefore, counted to that point only...The timekeepers reported remarkably regular running by many riders, who, no doubt, realised that more than one team would get home complete, necessitating consideration of the regularity of lap times. EA Colliver, for instance, completed two laps in precisely the same time, and was but four seconds out on the other. As a team the Coventry club rode most regularly, all appearing to leave the timing to the leader of the van, the imperturbable Sam Wright...Mundy (Surbiton) arrived with a flat sidecar tyre on his Martinsyde-Newman, and so enabled his team to finish intact bedecked in their picturesque blue tammies with tassels complete! Symons, Rochester, and Giles (AJS) also rode on with a flat back tyre. As the finishing line was crossed and the team representatives were able to compare notes, it was amusing, yet sad! to observe the chagrin of teams of five to learn for the first time that the sixth man had retired. This happened in several instances, and the poor unfortunate had usually departed—home, crestfallen no doubt, but preferring not to await the 'sympathies' of his colleagues!" Each club fielded three solos and three combos: Sheffield and Hallamshire MC&LCC; Coventry and Warwickshire MC; Motor Cycling Club; Leicester &DMC; Nottingham &DMCC; Worcester &DMCC; Birmingham University MCC; Bucks County MC; North West London MC; Norfolk MC&LCC; Woolwich, Plumstead &DMCC; Luton & South Beds AC; Herts MC&LCC; Ipswich &DMCC; Ilkley MC&LCC; Wallington &DMC&LCC Bradford MC&LCC; City and Guilds MCC; Surbiton MC; Public Schools MCC; Lewes &DMCC; Oxford MC; North London MCC; Ealing &DMCC; Essex MC; Camberley Club; Basingstoke MCC; Gipsy MCC.

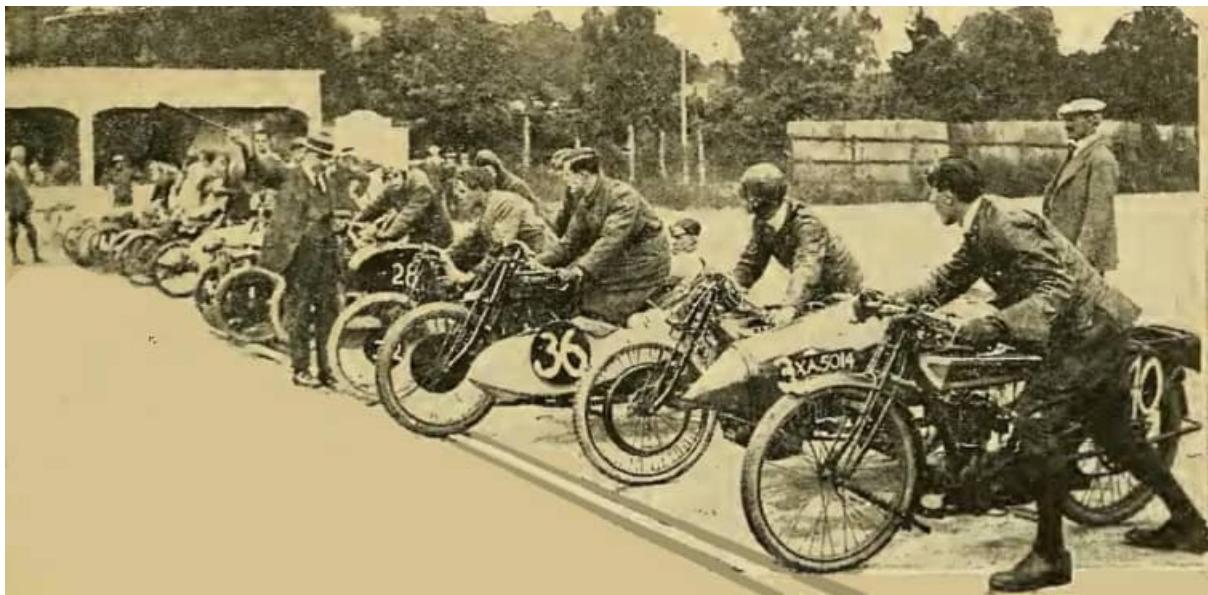


JL Emerson covered 67.93 miles in an hour at Brooklands on his 400cc ABC to break the 67.44-mile 500cc record set by GE Stanley on a Singer in 1912. The ABC had to be stopped a couple of time for running repairs—for three laps Emerson averaged 71.5mph. (Right) During the same week in June Captain Maurice C Breese took the 500cc sidecar four-hour record, covering 170 miles 862 yards at an average 42.42mph on a 3½hp Beeza. He did one lap at 50mph; Breese's run included a dozen stops to clean an oily drive belt.



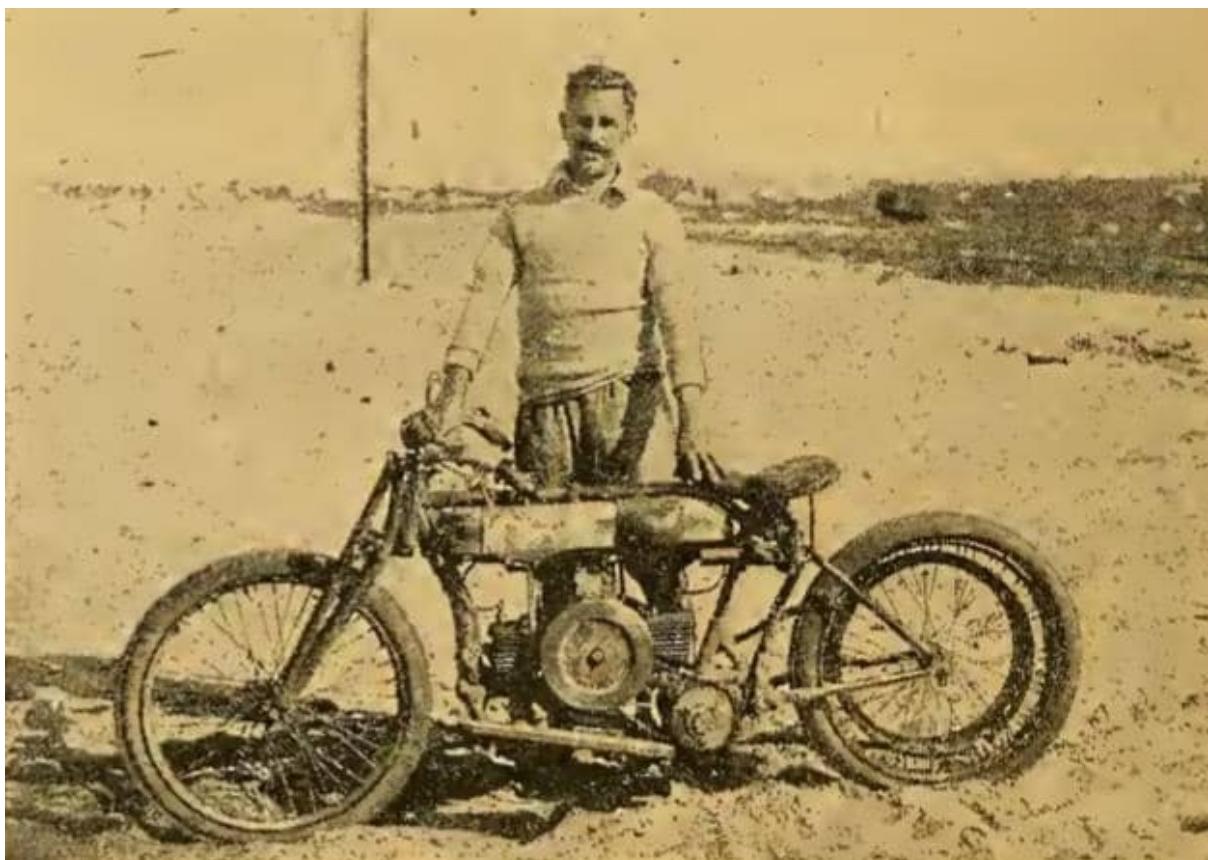
The record breaking ABC was equally at home as a fast roadster.

"THERE IS HARDLY A GAP LEFT in the current range of motor cycles," Ixion noted, "which commence with the scooter and motorised push-bicycle, and ascend by easy stages up to the four-cylinder with car transmission, dragging a sidecar with a costly instrument board, camping outfit, and picnic equipment. Nevertheless I am still looking for the ideal sports model. I know all about the Brooklands Norton, the TT Triumph, and others of that ilk, but for a go-anywhere rider the single gear machine can be a shade too sporting at times. Some readers will remember a year in which the Scottish Trials went up Applecross, and a couple of trade teams were mounted on what might be described as IOM belt-drivers; they had variable gears, and they were not excruciatingly heavy. But the unlucky wights who bestrode them had enough 'sport' to last them a season, and said so. They roared up to blind hairpins at 30mph, and canted their 'buses over to make an angle of 30° or so with the ground-line, but even then they could not get round. Some of them took heavy crashes, some of them scraped round, and could not pick up again afterwards. I am still looking out for a lightweight, hotstuff, stripped machine, fitted with an emergency two-speed gear, on which I can get up Applecross without any pushing."



On the start line of an All-comers Handicap at Brooklands; the free-for-all was won by HR Harveyson on an Indian.

"THE 396-MILE JOHANNESBURG-DURBAN ROAD RACE is regarded as the blue riband of South African motor cycle events...It was raining when the men started from Johannesburg, and continued on and off all day. As a consequence the roads, which in the best conditions are far from good, developed into veritable quagmires, the surface so slimy, greasy and holding, particularly where the roads passed through the country of black loam, that it was marvellous how the riders managed to keep in the saddle...Soaked through to the skin as soon as they started, the men, nearly all of whom rode without mudguards, were instantly smothered with mud, and after the first thirty miles, the event resolved itself into an endurance run. Speed, as understood in this country, was out of the question, the machines careering from side to side of the road with the drivers at times out of the saddle and running alongside to enable the engines to pull through the grease. Even with the stripped machines the forks became clogged, acting as brakes which called for frequent



"FAR Zurcher (3½hp Douglas), winner of the Durban-Johannesburg race for solo mounts, the blue riband event of South Africa."

stoppages. Of the forty-four starters, ten retired in the first 50 miles; at each succeeding mile falls were so frequent, with minor damage to the men and worse to the machines, that further numbers dropped out, and at Standerton, 96 miles, half the men had disappeared. So it went on from hour to hour until Volksrust, 150 miles, was reached, two miles from the border line between the Transvaal Province and Natal Province. Hereabouts is the fairly easy climb to the top of Laings Nek, a 40mph climb in dry weather. Some idea of its condition can be realised when, very late in the evening, two only of the competitors pushed their machines up the last half mile, which occupied 30min. These two, Percy Flook (2¾hp Douglas) and F Owen (3½hp Indian), thought themselves the only survivors. Flook was leading, but allowed the other man to overtake him at the top. Holding a council of war, they decided it was almost impossible to cover the 35 miles to Newcastle that night...They decided to start together at daylight, but they did not know that...still another plucky man, F Volkrust, on a 494cc spring-frame Douglas, was doing his level best to keep going. He was exactly four hours behind them, without a lamp, and dead tired. A car driver found Flook and Owen at Majuba Farm with their wet clothes before a fire. He told them Zurcher had gone by. Flook was the first to get away, taking only 45 minutes to get into his wet clothes and to have the engine running. Zurcher reached Newcastle in 15hr 49min total riding time from Johannesburg, against the 4hr 43min the fastest time for 1919 over the same portion of the race route. Flook reached Newcastle 1hr 16 min later, and Owen 2hr 35min behind Zurcher. Zurcher, with a bigger capacity engine than Flook, and the further advantage of a full sprung frame, now looked like winning easily, as the twenty-four hours' interval and strong sunshine had almost dried up the roads. Flook was handicapped still more by a cracked handle-bar, caused many tumbles. Yet, despite the risk of the handle-bar snapping off at any moment, he went after Zurcher at a wonderful speed, and, just beyond

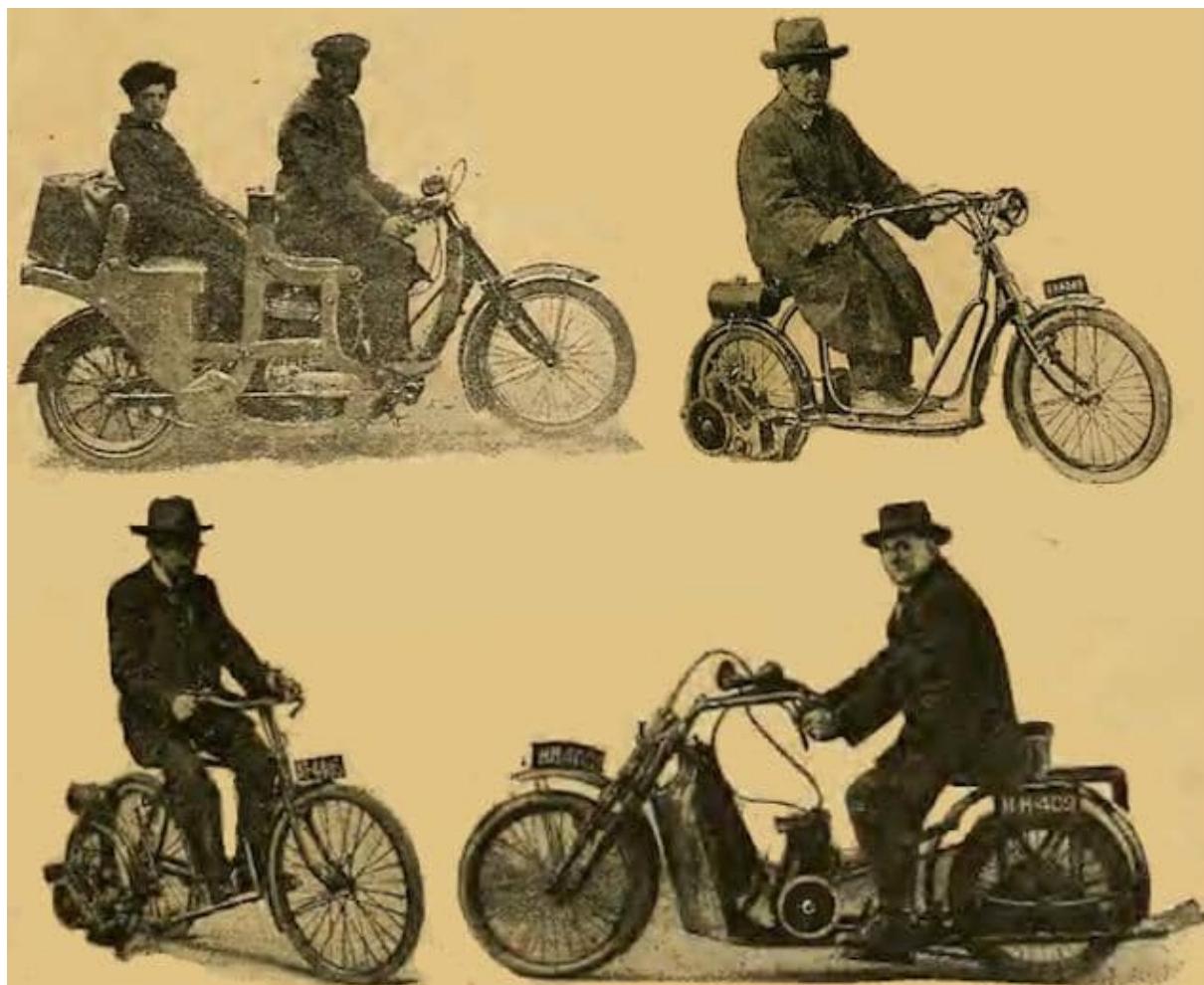
Estcourt, 100 miles from Newcastle, had Zurcher in sight, when the handle-bar broke. This left Zurcher a clear run to the finish. 1, FAR Zurcher (494cc Douglas) 23hr 18min 20sec; 2, P Flook (350cc Douglas) 25hr 17min 0sec; 3, F Owen (498cc Indian) 26hr 18min 50sec; 4, EG Murray (989cc Harley) 28hr 30min 15sec; 5, GT Taylor (584cc Harley) 33hr 23min 6sec."



"Some of the finest natural speedways in the world are on tide-washed sands, and, as in America, the British coast town clubs are not slow to make use of them. The photograph depicts a scene at the recent Southport Speed Trials."

"HOWARD E DAVIES, WHO RODE a 2½hp AJS in both Junior and Senior TT, and who is well-known as an expert competitor in trials generally, has joined the staff of AJ Stevens, Ltd, as competitions manager."

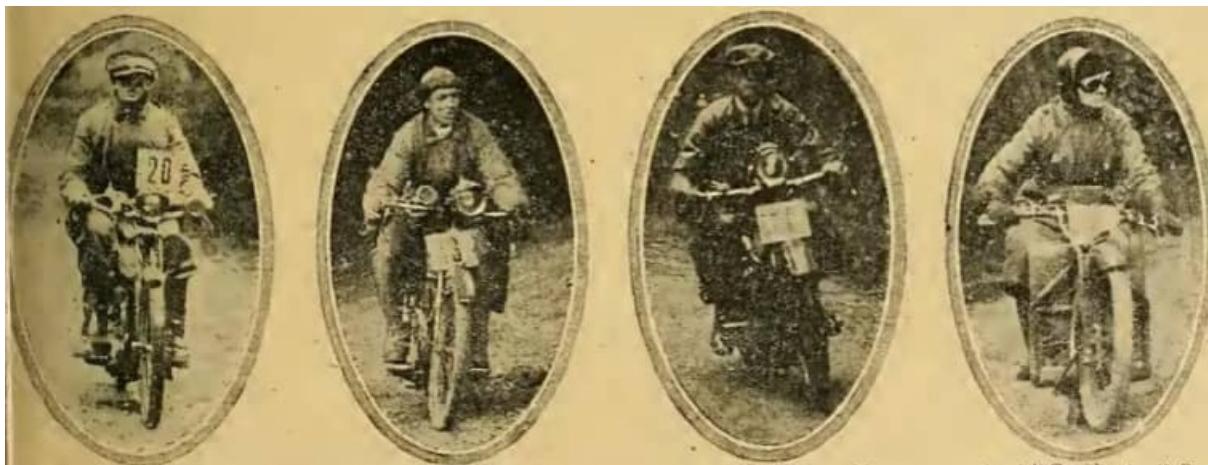
"WHEN THE SIMPLEX MOTOR ATTACHMENT was in its experimental stage we jocularly remarked to the designer that eventually it would be used to propel sidecars. A London owner of one of these attachments uses a light sidecar built to carry two children, and does quite long runs on a consumption of 130mpg with lpa only on the steepest hills encountered."



"Some examples of the utilisation of the Auto-wheel, a curiously constructed passenger machine, and a 'home-made' rear sprung lightweight. (From the left) This quaint three-wheeler is the patented design of Mr J Cox, of Tutbury; it has been on the road for several months, and provides accommodation for three adults. A miniature, which has been made by Mr JD Timmins, of St Albans, is another example of a light machine utilising an Auto-wheel. A useful little runabout machine has been made for Mr R Whitty, of Hull by using a bicycle sans pedalling gear and an Auto-wheel. A miniature with car type springing, designed and built by Mr Geo Hazel, of Beaumont, Cumberland. The machine depicted, with its spring forks and semi-elliptic rear springing, should be comfortable to ride, though not over stable on grease."

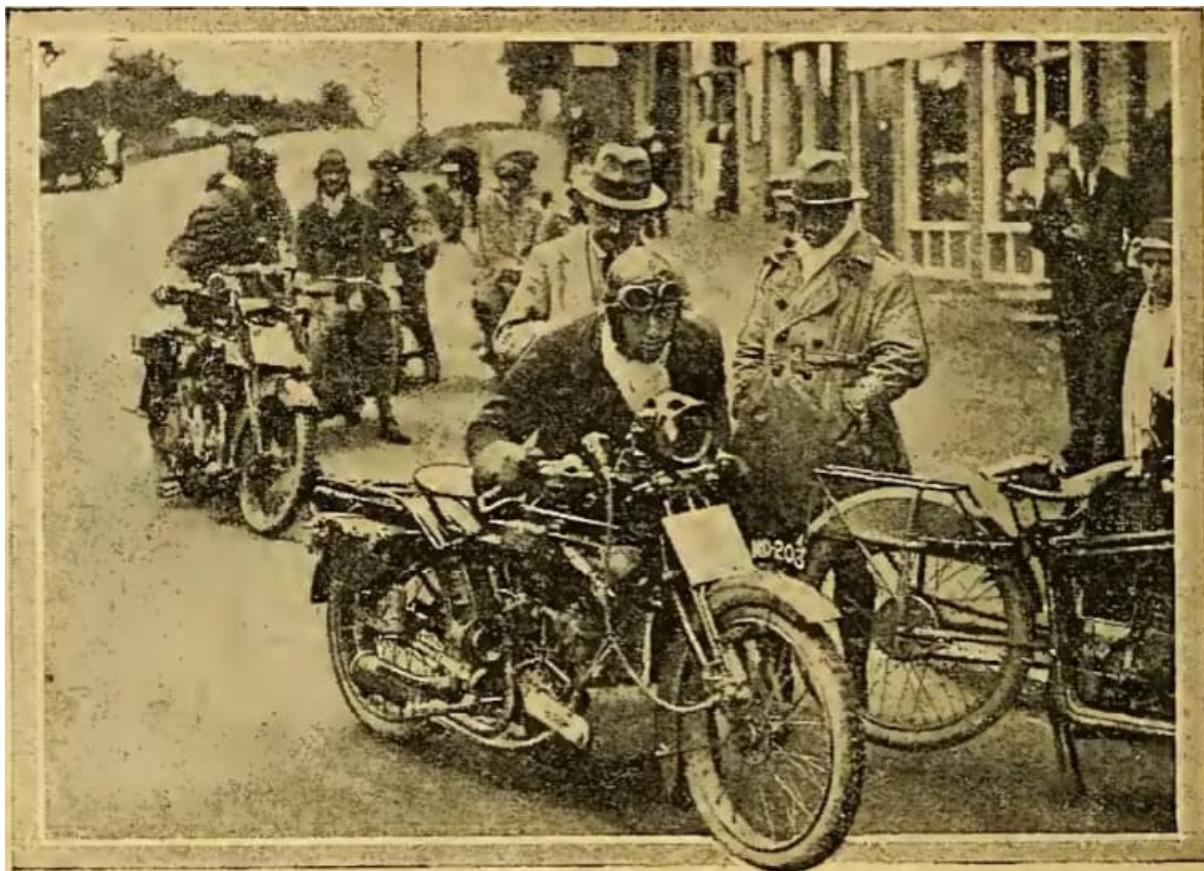
THE ARBUTHNOT TROPHY TRIAL

"FUNDDED TO COMMEMORATE THE GLORIOUS death of Rear-Admiral Sir RK Arbuthnot, that gallant motor cyclist who did so much for the movement in its early days, the trial for the trophy of his statuette, executed by Lady Scott, is unique. First, it is the only trial of which we are aware which is for solo machines only, and secondly, it is the only one confined exclusively to officers of the Royal Navy. This year the entries were better than last, but unfortunately the Fleet mobilisation and the trouble in Ireland and the East seriously affected the entry...Mr TW Loughborough, secretary of the Auto-Cycle Union, as usual, displayed wonderful



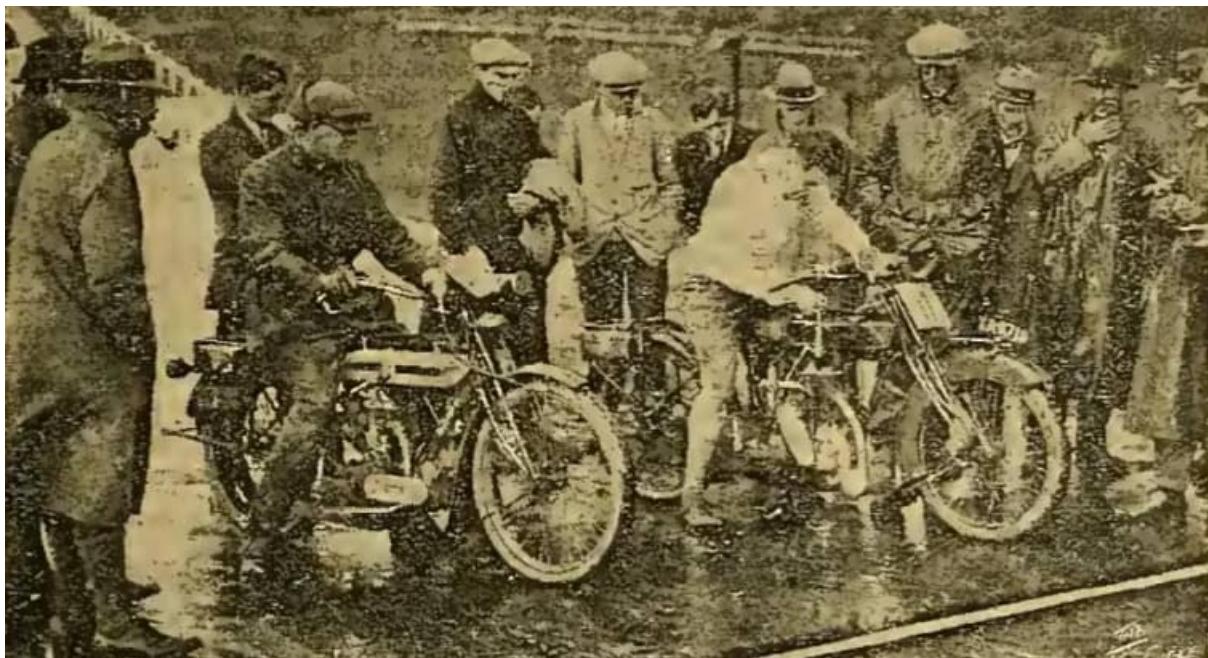
From the left: "The second man, Lt TH Back, RN (4hp Triumph); He was runner up in the 1919 trial. Sub-Lt KB Wilson, RN (2½hp Douglas) on Pebblecombe; he finished third. Sub-Lt G Plumer (6hp Zenith), near Hindhead, on the second day. An ABC rider, Lt PB Lawder, RN, taking the corner at the top of Wray Lane."

ingenuity in devising a really stiff course, the difficulties of which were enhanced by the bad weather...its appearance on the map, to quote Mr Ebblewhite, the timekeeper, whose wit is proverbial, resembled 'a worm in agony'. It twisted and turned with diabolical ingenuity and included every hill of note on the North Downs, from a point east near Cudham to a point in the west near Guildford...it was most productive of incidents and provided plenty of 'fun', especially for that brave man HLS Baker—No 13—who rode a 4hp single-ganged Triumph, and at the end of the day wrote on his non-stop card 'failed on all decent hills'. He is one of those people who will not admit that motor cycling provides no exercise...At lunch time it was announced that PFF Bourne (4hp Norton) had retired owing to a damaged rear brake. Hamilton's lamp was adrift and made fast by string, while his foot- rests were badly bent. Hovenden's Zenith had his crank case drain plug carried away through striking the ground, and he successfully stopped the hole with a cork." Following two days of gruelling riding Back and Kidson were the only riders left in the running for

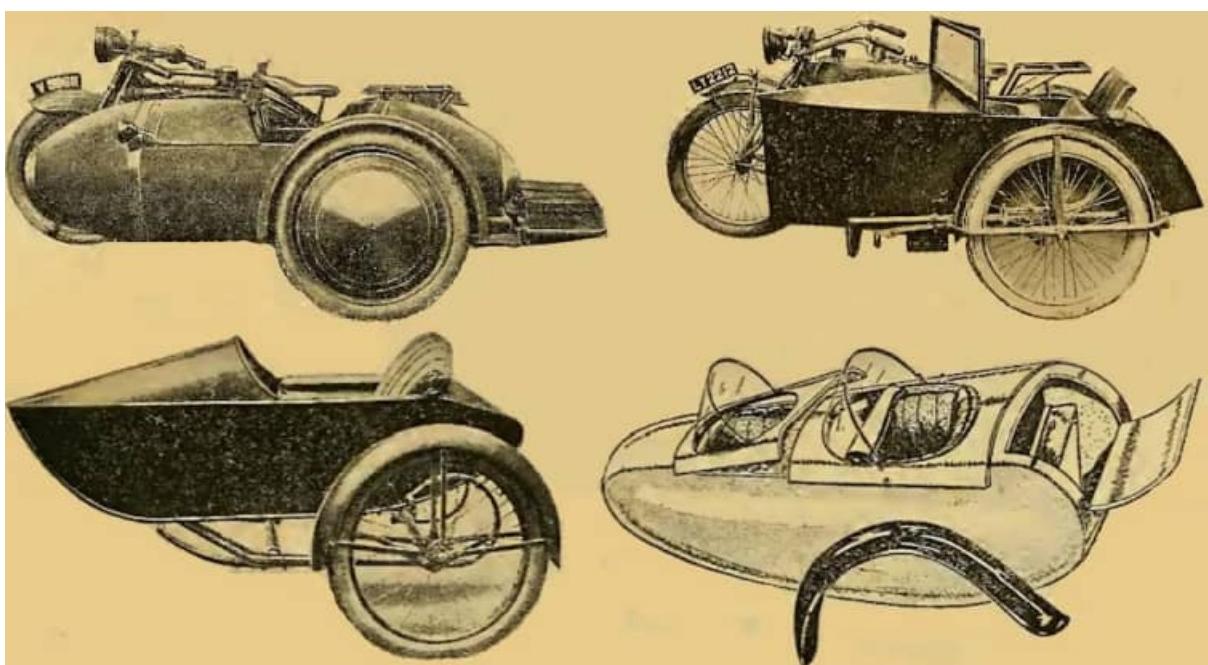


"Leaving Hindhead after refilling: Sub-Lt R Whitcraft (Zenith) followed by Lt Glen Kidston (3½hp Sunbeam).

the Arbuthnot Trophy. The trial ended at Brooklands where "it was decided that both should drive round the track at speed, and start at the paddock, turn sharp left at the straight, make two circuits of the track, stop at the finishing line, and ascend the test hill. The two survivors tossed as to who should start first. Kidston won, and got away well...He made two fast circuits and a splendid ascent of the test hill. Back had all the luck against him. The track was swimming in water, and his belt slipped badly during the two laps, and on the test hill it refused to grip altogether. Results: Lt GP Glen Kidston, RN (3½hp Sunbeam), winner of trophy, water in float chamber, two stops altogether. Lt TH Back, RN (4hp Triumph), second, silver medal, engine stopped for unknown reason; three stops altogether. Sub-Lt KB Wilson, RN (2¾hp Douglas), bronze medal, stopped for petrol. Lt EH Mann, RN (2¾hp Wooler), bronze medal, failed on three hills, and various troubles. Lt RV Mack (2¾hp Wooler), retired, sheared flywheel key. Paymaster Lt-Cr PFF Bourne (4hp Norton), retired, brake came adrift. Lt PB Lawder, RN (3hp ABC), lost exhaust valve rocker; retired Blackdown. Sub-Lt CR Whitcroft, RN (6hp Zenith), retired. Sub-Lt PV James (3hp ABC), retired. Sub-Lt HLS Baker, RN (3½hp Triumph), stopped on three hills; puncture. Lt WEV Bashall, RMLI (3hp ABC), retired owing to collision. Sub-Lt. G. Plumer (6 Zenith), retired. Lt CJM Hamilton, RN (2½hp Levis), chain came off, choked jet and footrests adrift. Lt RC Hovenden, RN (8hp Zenith), retired."

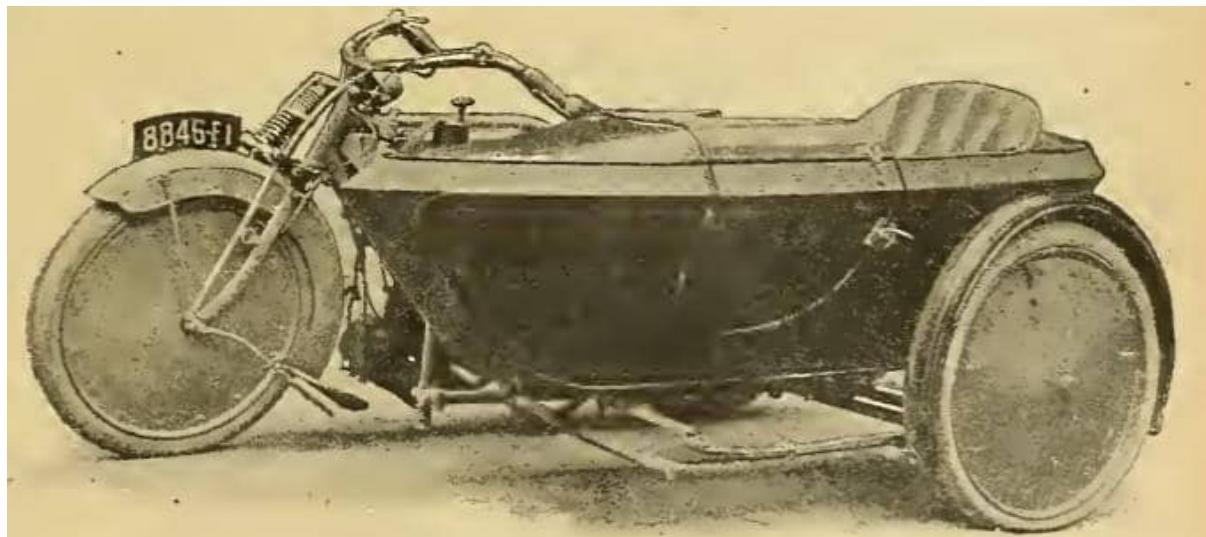


"The Arbuthnot Trophy winner and second man, on Sunbeam and Triumph machines respectively, starting their final lap at Brooklands."



"Modern sidecar design: (Top left) The Delta sidecar attached to a Henderson machine. Suspension is by quarter elliptic springs. Disc wheels add to the smart appearance. (Right) A sidecar of distinctive appearance, designed by Dr Morris, of Hereford, rather suggesting a racing boat in appearance It is very light, and is fitted with a comfortable hammock seat. The top of the body is hinged at the front, and can be raised to allow easy access. (Bottom left) Another example of a boat sidecar, the National, an American product, which is to be offered in this country. (Right) The tandem-seated Lascelles sidecar, designed by PVW Fenn. Observe the neat screens."

THE US-MADE NATIONAL SIDECAR, pictured above, is clearly a progenitor of the launch sidecars that would grace British streets a few years later. The French were also ahead of the game...



"It will be seen that very graceful lines have been obtained in this sidecar designed by the French firm of Gamier and Co. There is a touch of the nautical about the body, by reason of its pointed bow, its rounded stem, and its curved deck. The workmanship and finish are excellent, and these may be taken as an indication of the close attention that is now being given in France to motor cycle development."

"**LIKE THE MOTOR CYCLE QUERY** Department, the ACU are bombarded with all kinds of strange requests. A lady recently telephoned the ACU from the outskirts of London to say that she was in a 'paralytic fright' of the traffic. Another member also telephoned that he was 'fed up' and 'tired', and required someone to drive his machine into London. The lady was at least candid."

"**ALTHOUGH THE TT AND THE ACU Six Days Trial** are international contests, there has been very little of an international nature about these events since the war. Even the International Six Days has not attracted a really representative British entry. The Anglo-Dutch trial, therefore, may be counted as the first truly international event in the motor cycle world since the signing of the Armistice, and as such will attract international interest. In this trial a picked team of British riders rides against a picked team of Dutch motor cyclists. The event, therefore, can be likened to such contests as that for the America Cup in the yachting world, and the Olympic Games at Antwerp. The future may produce competitions in the motor cycle world between picked riders of Great Britain, Ireland, USA, Holland, France, Belgium, and the Overseas Dominions."

"**IT MAY NOT HAVE OCCURRED** to all users of spring frames that the chain tension varies a little according as the saddle is occupied or empty, because the centre of the front sprocket does not coincide with the centre of the pivot of the rear springs. Manufacturers are apt to gloss over the point for obvious reasons, but the difference in tension is sometimes sufficient to be perceptible. Little or no practical inconvenience results if the owner is careful to make his chain adjustments with a friend of approximately his own weight seated on the saddle."



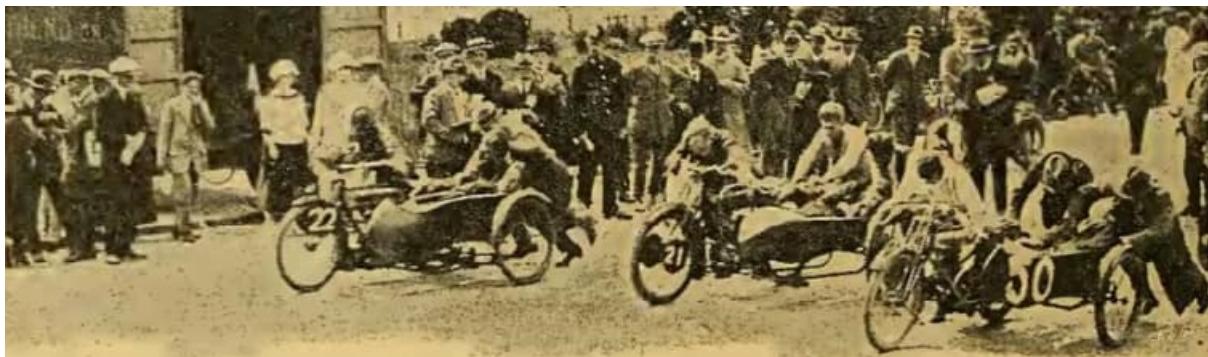
Triumph was

justly proud of the Model H that had cut its teeth on the western front earning the name Trusty. I wonder if the driver had Trusties on board for instant demo runs?

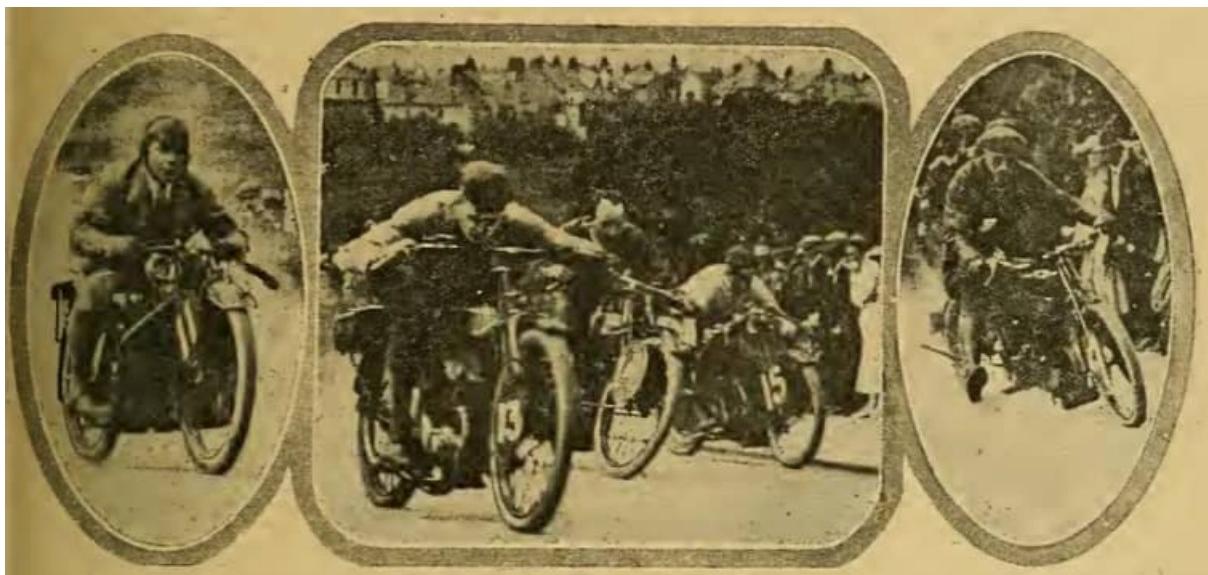
"SHOULD KNOW BETTER: One of our American contemporaries shows a sketch of a right-hand sidecar lifting on a left bend. The opposite result would happen, of course."

"SEVERAL MANUFACTURERS OF motor cycles are springing up in Australia. The machines generally follow American lines."

"AN EXCELLENT MEETING! SUCH WAS the general opinion of the many thousands of spectators who witnessed the very successful meeting held at Westcliff-on-Sea last Thursday. The weather was ideal, and remarkable speeds were attained by small and large machines alike. First place in eighteen of the thirty motor cycle events was secured by five machines, including a 5-6hp James sidecar ridden by GE Stobart. This machine and rider carried off no fewer than six first places. Good performances were also put up by E Porter (3hp ABC), who won four events. Fastest time of the day was made by HE Harveyson (7hp Indian), who attained a speed of 75.57mph in the 'unlimited' event. In this race, CE Baragwanath, on his fearsome looking 8hp Zenith, also put up a good show, finishing second. His time was but 0.4sec second longer than the winner. One motor scooter event was provided, the winner, SC Marshall, piloting a 1½hp Bunty at a speed of 29.91mph."



"Start of the 750cc sidecar class. CH Smith (4hp Triumph), GE Stobart (5-6hp James), who won this and several other events, and E. Kickham (3½hp Douglas)."



"Some impressions of men and machines a few yards from the starting line. No. 11, WR Bailey (3hp ABC), is steady. No 13, GE Stobart (5-6hp James), in his characteristic style with elbows out. No 14, H le Vack, on the Duzmo, has not yet got into his stride. No 15, J Day (3½hp Sunbeam), is dangerously near the kerb. No 3, the veteran FW Applebee (2¼hp Levis), starts off with a skid."

ANYONE WHO HAS CAMPAIGNED against discriminatory motorcycle legislation should raise a glass to Ixion, who led the way 100 years ago: "It is interesting to notice that the problems of night riding are now being tackled from both ends. In connection with the medical examination, mooted as a preliminary to the issue of driving licences, the oculists have specified a 'minimum vision', and Sir Eric Geddes will shortly define a 'maximum light'. This looks as if the policy were to limit the use of the roads after dark to people with hawk-like eyes travelling in a pallid gloom, and reminds one irresistibly of Plato's description of the infernal regions as a cellar peopled by shadows. The trend of these proposals is full of danger. If motoring is to be regarded either as a dangerous hobby confined to the unco' rich (like hunting), or as a utilitarian method of transport (like the railways), severe restrictions might be justifiable. But motoring actually fulfils both the above definitions, and is also a great deal bigger than either of them. It is the favourite hobby of the middle classes and of the more prosperous artisans. In the past our road law has been framed and administered, on the whole, in the interests of liberty. Blind folk are permitted to walk. Deaf persons are permitted to cycle. Uneducated flappers are permitted to wheel prams with twins in them. Little toddlers are permitted to play pegtop. Elderly females without powers

of decision are permitted to ferry great armfuls of parcels about the public streets. The safety of road users has been mainly entrusted to the commonsense and sympathy of other road users. The system has worked well. There are symptoms of change. The mantle of Dora [wartime Defence Of the Realm Act] appears to have fallen on our bureaucrats. It would be folly to allow blear-eyed octogenarians to drive three-litre Bentley cars with 100,000cp head lamps. But it will be oppression if our lamps are dimmed down to the likeness of 1in paraffin wicks, and night riding is then confined to men who can pass the sight tests for an RAF pilot. Undoubtedly the price of liberty is eternal vigilance."



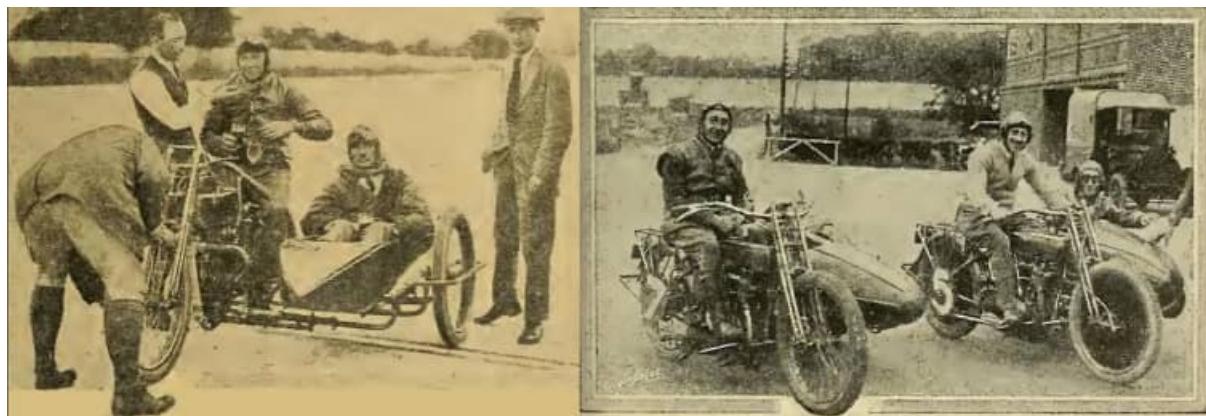
The MCC staged its seventh annual meeting at Brooklands; the club's first race since the war. Highlights included the appearance of a TT AJS in the hands of SR Axford; he rode it to victory in the Arbuthnot cup race.

"FOLLOWING THE EXAMPLE OF MANY American cities, Paris is to have a force of motor cyclist policemen, whose machines will be fitted with speedometers. They will use these machines for the purpose of catching motorists who exceed the speed limit. Sidecars will also be used for the purposes of transport."

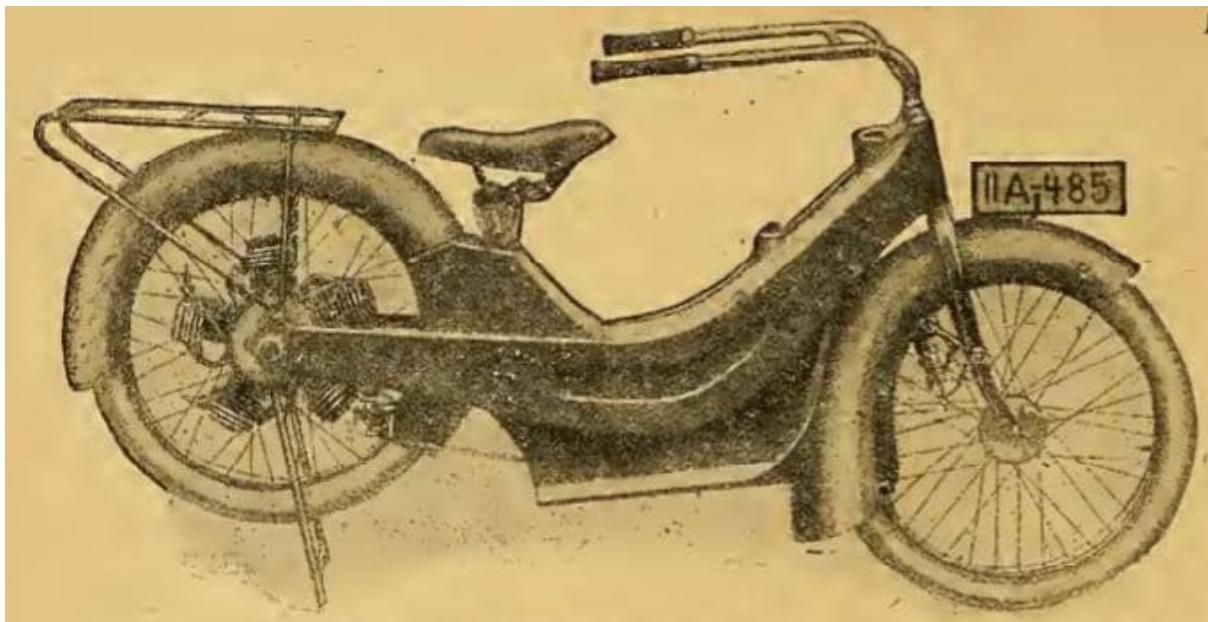
"THE MANUFACTURERS OF THE IVY MOTOR CYCLE have decided to concentrate on a 348cc engine for next year, and, being determined to disperse the impression that two-strokes overheat, at least as far as their own product is concerned, they undertook twenty-five consecutive ascents (non-engine-stop) of the old Wyche at Malvern...His time for the first lap, of 1.5 miles, was five minutes; of this distance about half-a-mile is on the ascending gradient which reaches a maximum of 1 in 2.8 at the top...a Sturmey-Archer three-speed box was employed, in conjunction with all-chain drive...The distance covered was forty miles, the time taken was 2hr 8mins, and the average speed, therefore, was 18.75mph. Immediately the engine was stopped it was examined, but no sign of excessive heat was observed, the cylinder was at a normal temperature and the hand could be placed momentarily on the radiating fins. Altogether the demonstration was one which clearly shows that the 3hp Ivy two-stroke is equipped with an engine capable of undertaking any task imposed by the normal rider. The test was observed by a representative of the ACU."



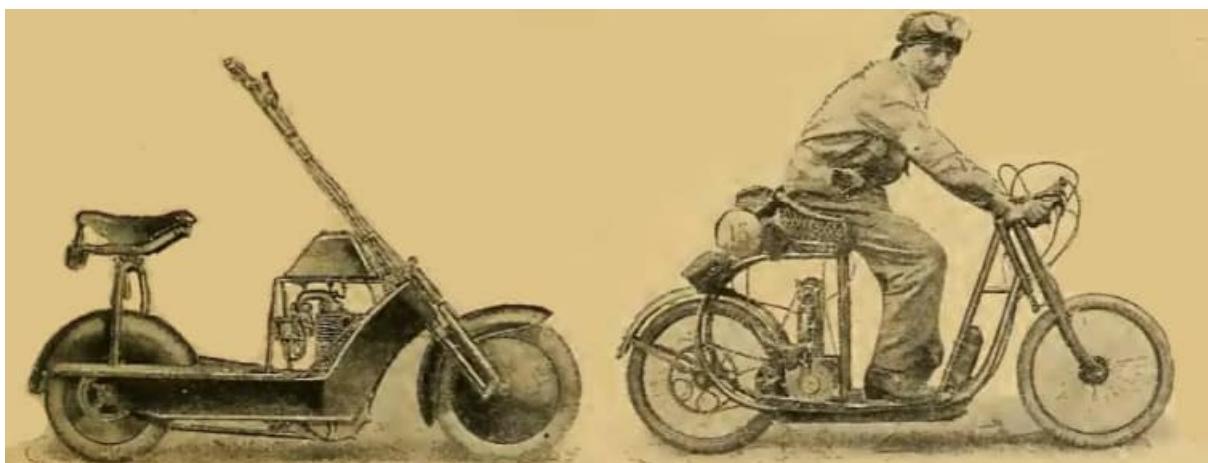
"Breasting the 1 in 2¾ section of the Old Wyche for the twenty-fifth time."



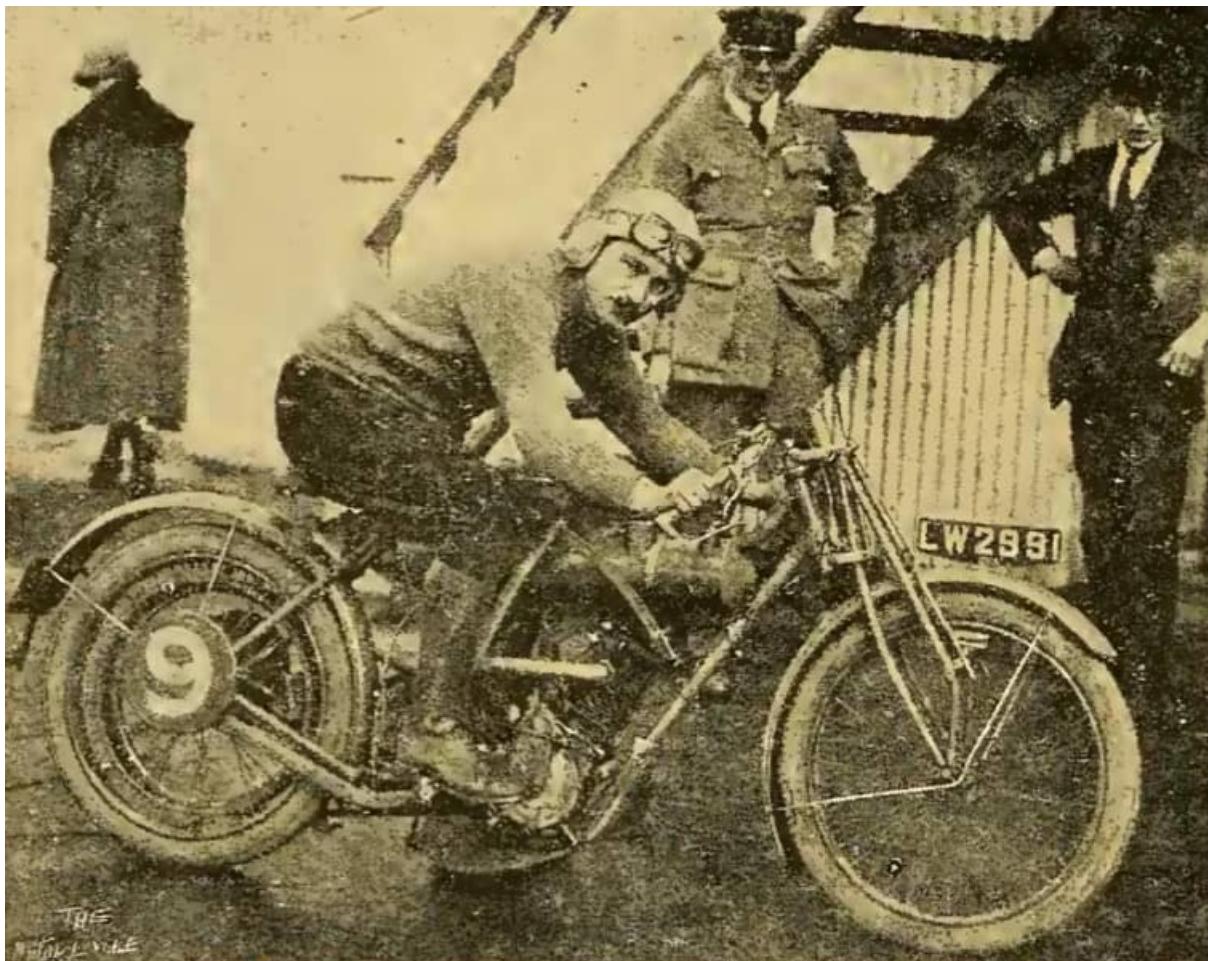
"JD Marvin and JA Sullivan took turns riding a standard Harley combo for 12 hours to set 20 records ranging from 2-12 hours and 100-600 miles. They averaged 50.8mph for 12 hours and 53.3mph for two hours. (Right) In addition to the records put up by JD Marvin and TA Sullivan on Tuesday of last week, other Harley-Davidson sidecars have distinguished themselves on the track recently. Above are shown JA Masters (No 5) and E Longman (No 7), who finished first and second respectively in the 1,000cc sidecar event at the last Brooklands meeting. Masters's speed was officially given as 57.8mph."



"A five-cylinder radial engine is embodied in the back wheel of a new German motor cycle. The drive is through a train of gears."

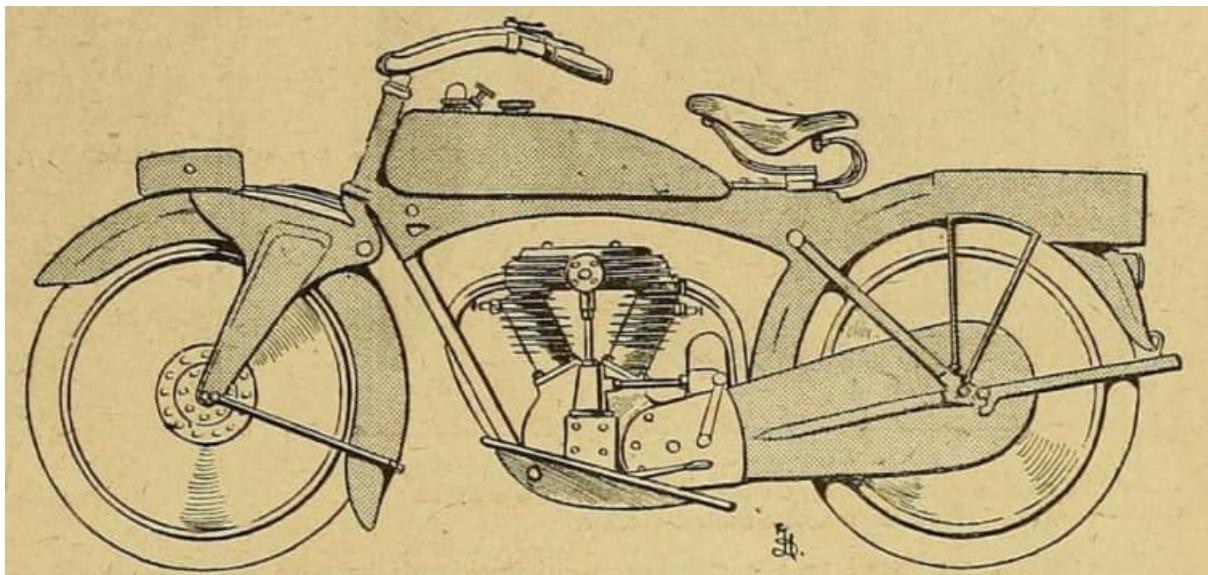


"Two continental miniatures; it will be observed that both have seats and spring forks: An advanced design emanating from Germany, and embodying a pressed steel open frame. (Right) A 'TT' model Monet-Goyon, the winner of the recent scooter trials in France."

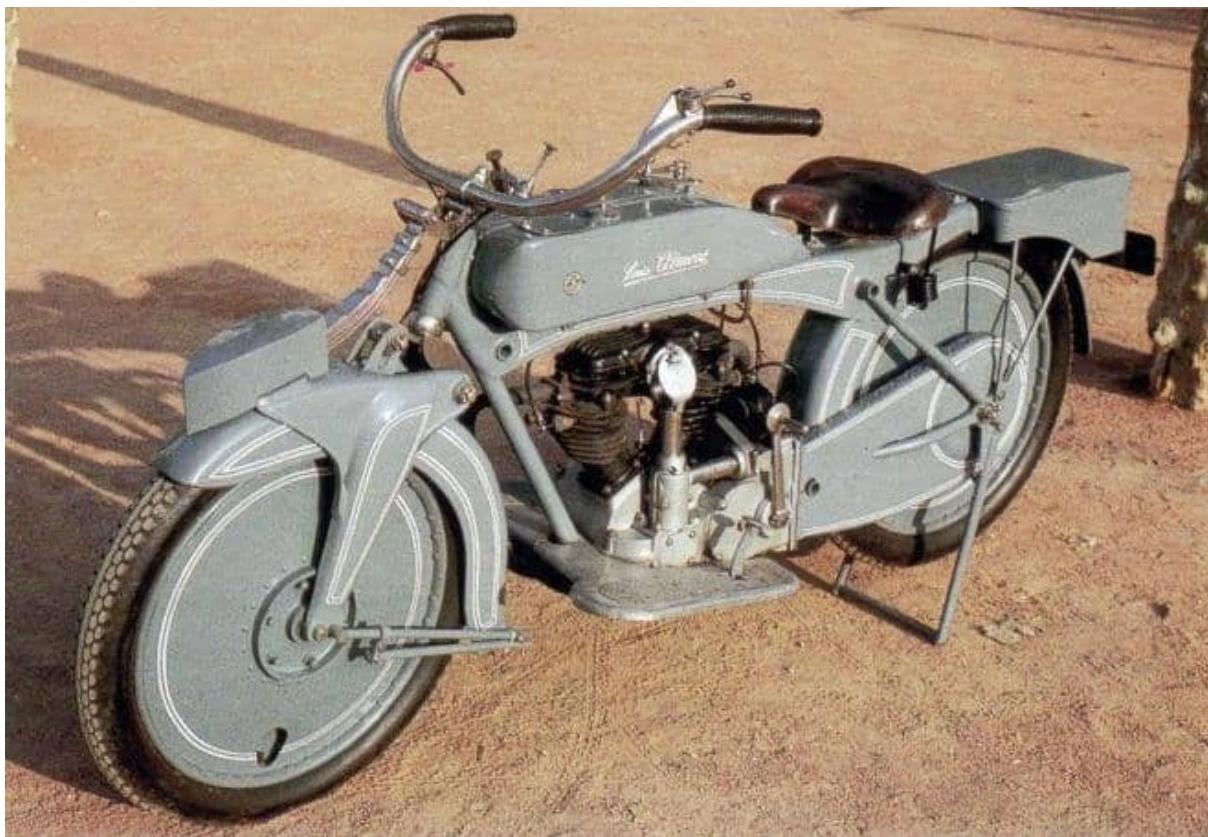


Veteran racer Harry Martin climbed back onto the saddle of his 3½hp Matchless-MAG to win the 500cc class at the British Motor Cycle Racing Club meeting at Brooklands. He was one of several race winners to use a one-lever 'automatic carb. There were two Douglasses in the same race; one was ohv, t'other sported aluminium heads.

"FRENCH MOTOR CYCLE DESIGN showed a wonderful revival at the last Paris Salon...several machines were brought forth by new concerns and hitherto unknown engineers, in which were incorporated original ideas of such merit as to place them in a class by themselves...As the most typical of the new French design, the Louis Clement twin may be selected...The outstanding feature of this machine is that the two cylinders, of 62x90mm, mounted at an angle of 55° on an aluminium crank case, have a common detachable head carrying the valves, the camshaft, the cam operating mechanism, and combining the intake and the exhaust manifolds. There is a detachable cover over the head, so that no moving parts are visible, and the whole of this mechanism runs in a bath of oil...the engine and the gear box for a compact unit...the drive is taken from the crankshaft to the gear box by a short, enclosed chain, and the final drive is taken to the



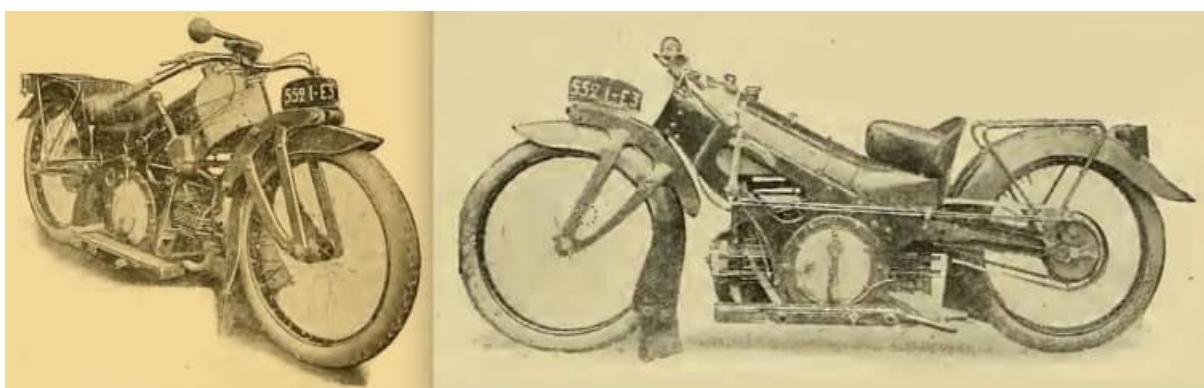
The Clement 55° V-twin, described as “the most typical of the new French design” had a single detachable ohv head and more pressed steel than tubing.



The only difference I can see between the contemporary sketch and this survivor is the front leaf-spring mounting. Clearly an advanced design but, according to the excellent <https://cybermotorcycle.com/>, it cost 1,000 francs more than a war surplus Harley so sales were dismal.

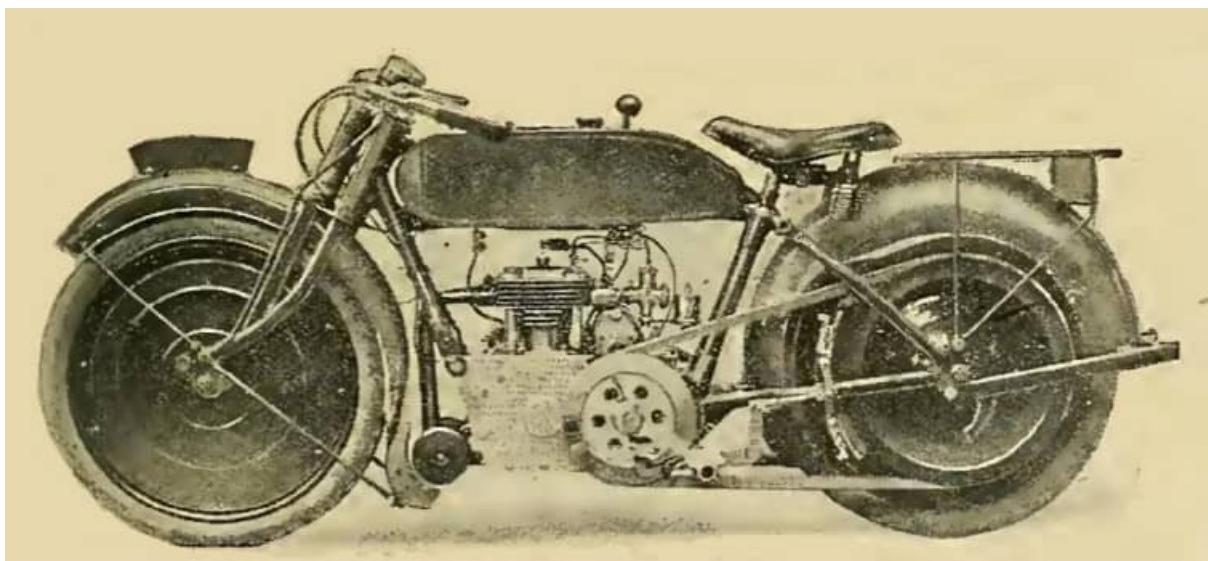
rear wheel by a second chain inside a detachable housing. A spring hub assures a perfectly flexible drive...The front fork is a steel stamping, carrying at its upper rear extremity a forged steering pivot. Front suspension is by means of a four- leaf spring shackled at its front end....the crank case forms a two-piece aluminium casting, divided horizontally, and forming two

compartments, the front one enclosing the crankshaft, with its internal flywheels, the multiple-disc clutch and the sprocket for the main driving chain. The rear compartment is a three-speed gear box...There are four cams operating the vertical valves by means of very long rockers. One of the patented features of this engine is the simple method of adjusting the valve stem clearances. The valve stem has a flat screwdriver type end, while the extremity of the cylindrical portion is threaded. A special nut with a flat head from which project twin studs, screws on to the end of the valve stem, and also receives the forked end of the rocker. The fork, while operating the valve, also prevents the nut from turning To get adjustment, it is only necessary to lift the rocker clear of the valve and turn the nut in the required direction. The detachable head, which is secured to the two cylinders by means of eight studs, has the intake and the exhaust passages cast with it. The carburetter, a horizontal Zenith, is thus bolted up direct to the head, without the use of any external intake piping...The engine, which has a piston displacement of 540cc, runs at 2,500 revolutions, at which speed it is declared to develop 8hp...Demountable and interchangeable disc wheels are another very good



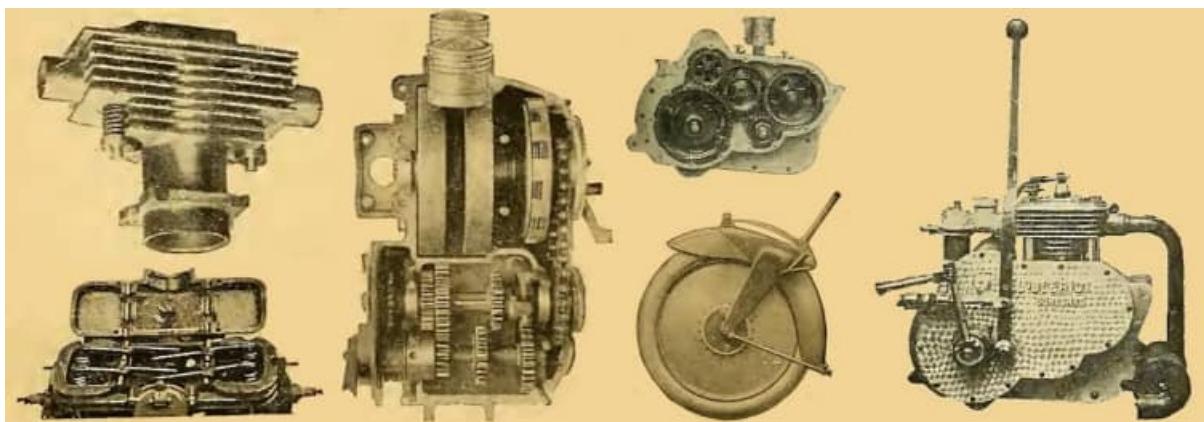
"Pressed steel construction in the modern French machine—the frame and front fork construction of the Louis Janoir flat twin, which has a spring frame. Observe the padded seat."

feature. These are built up of a cast aluminium hub, forming brake drum, aluminium discs, and a steel rim. The rear wheel can be taken out, leaving the chain, sprocket, and brake bands in position, and either the front or the sidecar wheel can be put in its place...The front wheel brake is operated from the handle-bar by means of a Bowden wire. The rear wheel brake control is by means of a pedal operated by the left foot...A machine of an entirely different type but no less original is the flat-twin 8hp Janoir...The engine has cylinders measuring 85x85mm giving a piston displacement of 965cc. The crank case and the two cylinders are a single aluminium casting with pressed-in steel liners and a detachable cylinder head with cast iron valve seats. With this design there is no joint, and consequently no holding-down bolts at the cylinder base. The crank case is cylindrical, and is closed by two circular steel end plates, which on being removed give complete access to the' internal organs...it is declared that this engine gives off 11hp at 2,000 revolutions, and 16hp at 3,200 revolutions. No attempt will be made to get the highest power out of the engine, but rather to adopt a moderate compression and get a very flexible and smooth running machine...starting is by means of a crank, as in the case of a car engine...Mounted on the top of the crank case is a compact three-speed gear



"The Bleriot vertical twin—a very compact design, in which mudguarding appears to have received serious consideration."

box...A gate type change speed mechanism, with its lever conveniently placed to the driver's right hand, is made use of... no steel tubes are employed, if exception be made of the handle-bar and the two small tubes for the luggage carrier. The front fork consists of two pressed steel members, the top bar of which is curved. They are united by three pins, the centre one receiving the head piece, and the two end ones being the shackle bolts of opposed leaf springs. A triangular pressed steel open frame is used, and the engine is bolted into it by a series of bolts going through the end plates of the crank case. At the rear a pressed steel fork, only slightly inclined from the horizontal, is used, with suspension by means of quarter-elliptic springs. Wire wheels are employed on the Janoir, but they are interchangeable, quickly detachable, and self-centring. No tools are required to change a wheel, and in the case of the rear, the chain, the sprocket, and the two brakes remain in position when the wheel is taken out...In the Bleriot twin an entirely different design has been adopted. Engine and gear box form a unit attached in a more or less standard type of frame. The two vertical cylinders are mounted side by side on an aluminium base chamber, with the exhaust valves facing forward, and the intake valves, the carburettor and the magneto at the rear. The crankshaft has a single throw, the two pistons thus moving up and down together. It is admitted that the balance does not approach that of the flat twin, although this defect has been overcome to a certain extent by light reciprocating parts. On the other hand the cooling is excellent and uniform. Piston displacement is 500cc, the cylinder bore being 50mm, and the piston stroke 88mm. The multiple-disc clutch and the two-speed gear set are contained in the rear portion of the crank case housing. The Bleriot company being one of the biggest aeroplane concerns in France, it is quite natural to find that the sidecars are built up in the same manner as aeroplane fuselages. These three machines, the Clement, Janoir, and



"One of the T-head cylinders of the Bleriot twin engine. The overhead valve mechanism of the Louis Clement V-twin. In the Louis Clement machine the clutch is mounted on the engine-shaft. The kick-starter is on the lay shaft of the integral gear box. Combined 'half-time' and change-speed gear of the Bleriot side-by-side twin. The simple but hefty Louis Clement front fork and disc wheel. All the machines described in this article follow this practice: the Bleriot unit, showing the side-by-side cylinders, kick-starter and gear lever."

Bleriot, are typical of the new French school. They do not, however, exhaust the activities of French motor cycle manufacturers. The product of the Gnome and Rhone Company need hardly be mentioned, for this is built entirely to the British ABC designs. An entirely French design is the Ballot two-stroke, built by the largest engine producing firm in France, with a reputation not confined to that country. It is not the intention of Ballot to produce a complete motor cycle, but to supply the engine only. This is now in production and will be used exclusively by the Alcyon Company. Other firms have arranged to take it up, and the entire output for the next four years is said to be booked. The engine is a unit with its gear set and all control levers. Among its features are the complete enclosing of all working parts. Even the magneto is placed in a dust-proof aluminium casing. Among the French engine specialists, mention should also be made of Anzani, who produced motor cycle engines long before he became interested in aeroplane engines, and who is again devoting his chief attention to power plants for two-wheeler and for cycle cars."

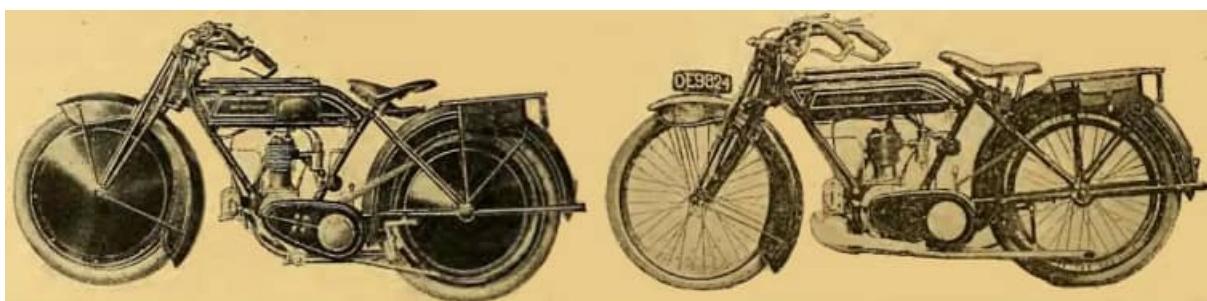
"FOR SOME WEEKS PAST I have been in the habit of visiting daily a neighbouring farm and returning in the evening on my Indian motor cycle. A few nights ago I was returning home as usual at sunset when I became aware of what I took to be a leopard bounding along at my side. At first I thought mere curiosity had tempted him to such close quarters, but I quickly realised that it had more serious business in view, so I immediately put on speed with the idea of outdistancing it. Without any apparent effort on its part it outflanked me, and attempted to head me off into the grass. I then made straight for it; this seemed to be unnerving, for it drew back at the last moment, and I went by like a flash. I thought I had seen the last of it, but was surprised on looking back to see it bounding along at my heels. Then followed a veritable race for life. I put on as much speed as the state of the road would allow (about 40mph), but it was only after I had done about 500 yards that I commenced to increase my lead. The race continued for another two miles, and when last I looked it was still bounding along 200 yards behind. The next evening a party of us went along to the same spot in a car, and there we discovered it lying in wait on the top of an anthill at the side of the road. I immediately put a bullet through its head. It turned out to be a female cheetah, measuring 74in from nose to tip of tail. The cheetah is by no means rare in these parts, but it is not often seen, and I have never heard of another instance where one has made an unprovoked attack on a human being. This specimen appeared to be in a starved

condition, so evidently hunger had driven her to such desperate efforts.

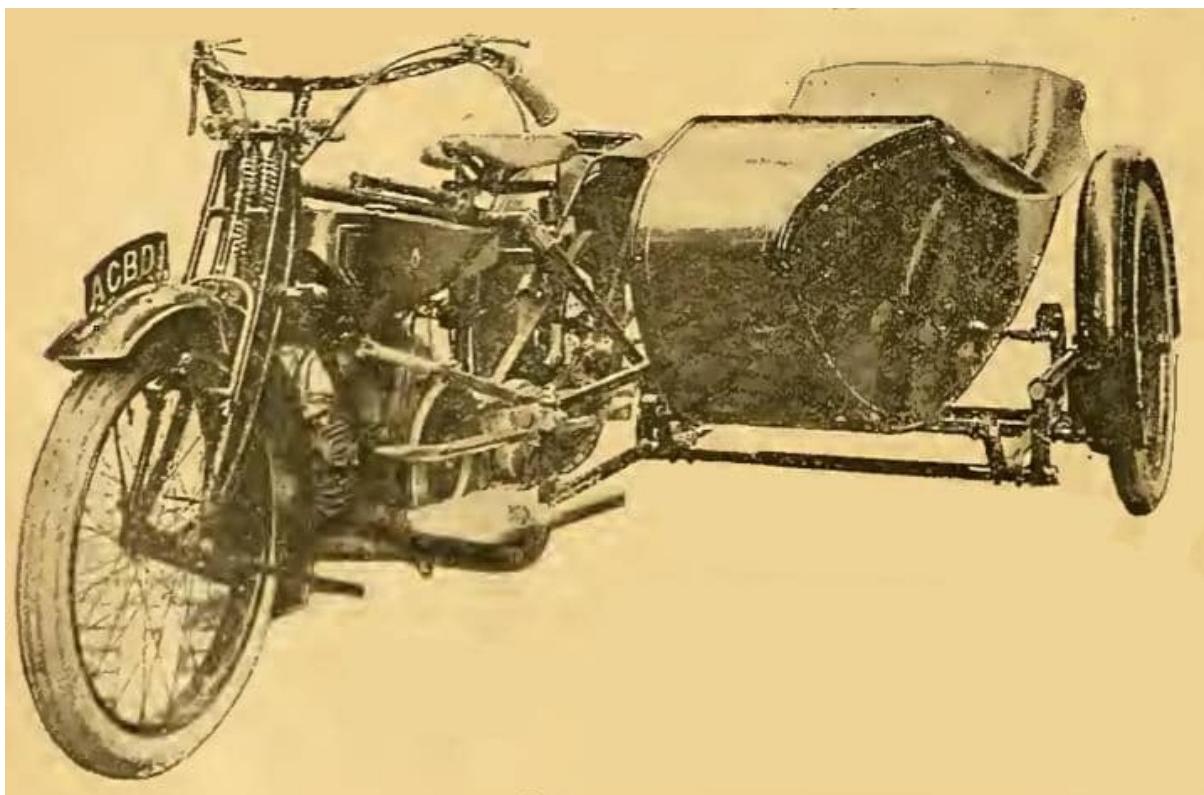
WA Smith, Uasin Gisliu, British East Africa."

[*Mr Smith encloses a photograph of himself, his machine, and the cheetah, but it is unsuitable for reproduction.—Ed.*]

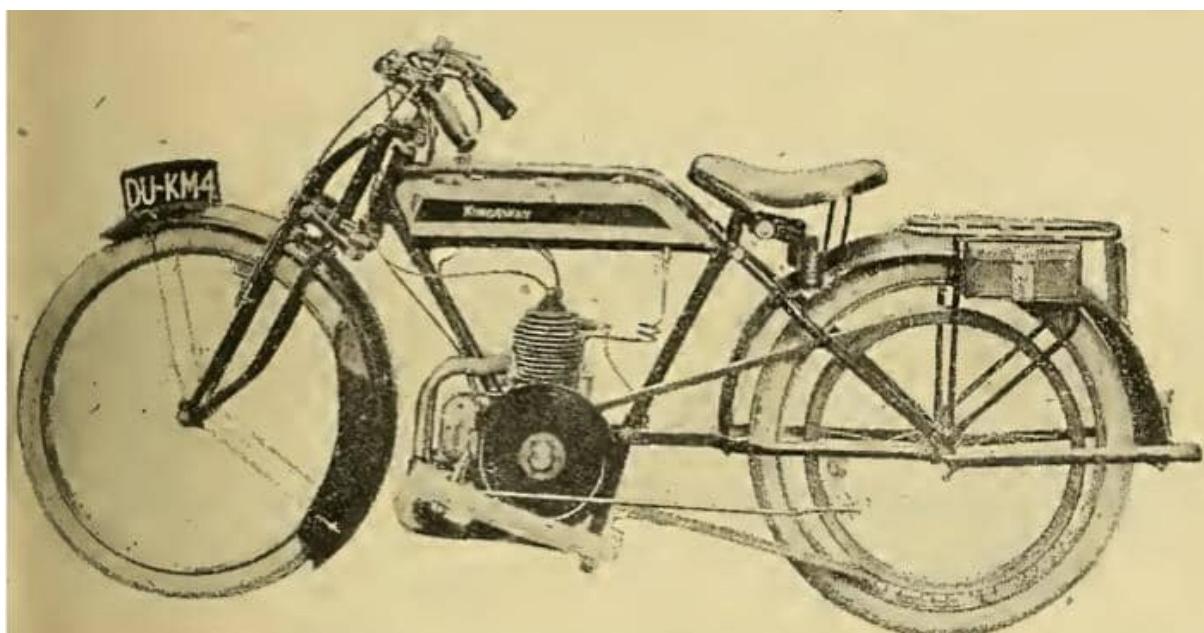
"THE MOTOR CYCLE INDUSTRY CONTINUES to grow. Every week sees new firms entering the manufacturing field, and while the output of a number of them will not be very large, in the aggregate they must make an impression upon demand. Many of these new makes of motor cycles are what may be termed assembled machines, but even in this field there is a great deal of difference in the quality of the best and the worst examples which may embody the same main units...there are many which are assembled by garages for local trade, and are therefore not of interest to the majority of our readers. Also, we know of several new models of dual-purpose mounts which are intended chiefly to meet the requirements of those who consider the de luxe type of machine too high in price."



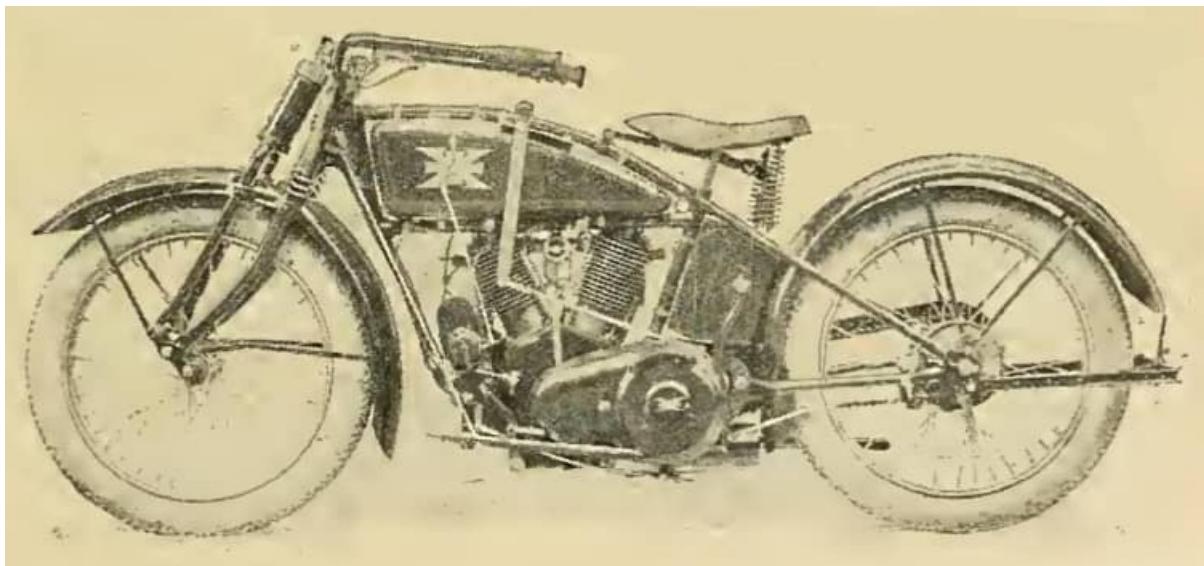
The Brummy built Massey-Arran, powered by a 2½hp JAP, came in sports and touring guises. The tourer featured Brampton Biflex forks, large cast-aluminium exhaust box and running boards; the sportster had Arden pressed-steel forks, a straight-through exhaust pipe, knee grips, disc wheels and footrests. Equipment on both models included a two-speed Sturmey-Archer box, CAV mag, Amac carb and pannier toolboxes, .



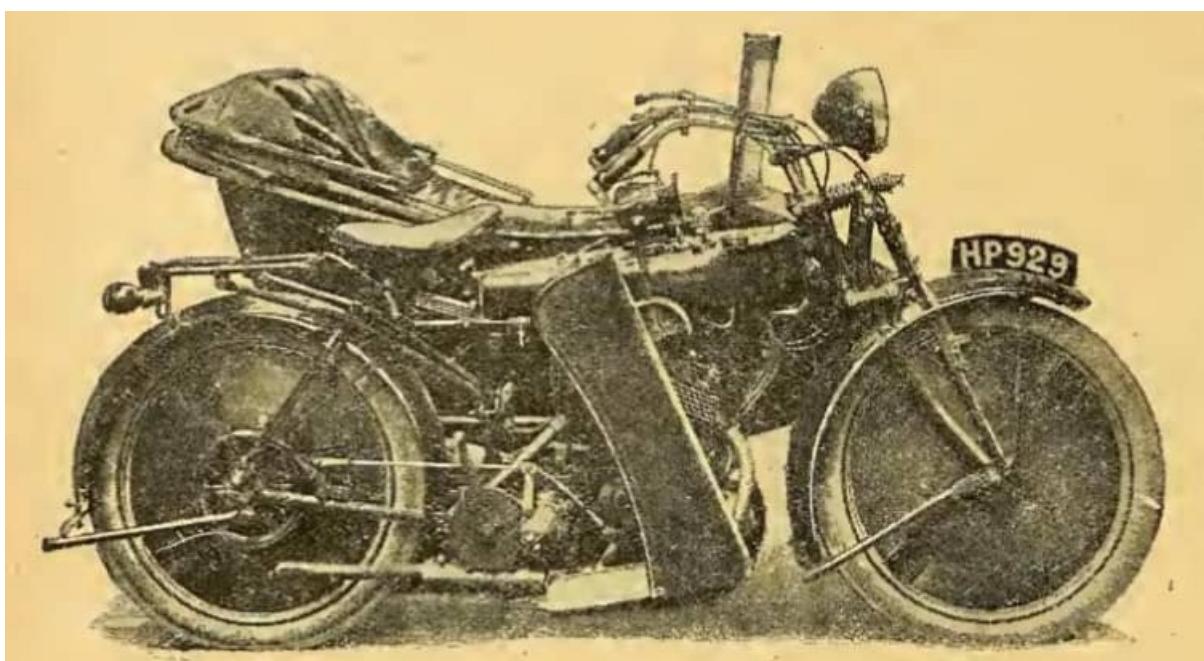
The Bulldog, made by HH Timbrell of Birmingham, was powered by a 5-7hp Coventry Victor flat twin with a TB mag and B&B two-lever carb. An enclosed primary chain transmitted power to a three-speed Sturmey-Archer box; final drive was via a Pedley belt. Equipment included Brampton Biflex forks, a Best & Lloyd lubrication system, long, wide footboards and a 2½gal tank (in black with red panels and gold pinstripes) which also held four pints of oil.



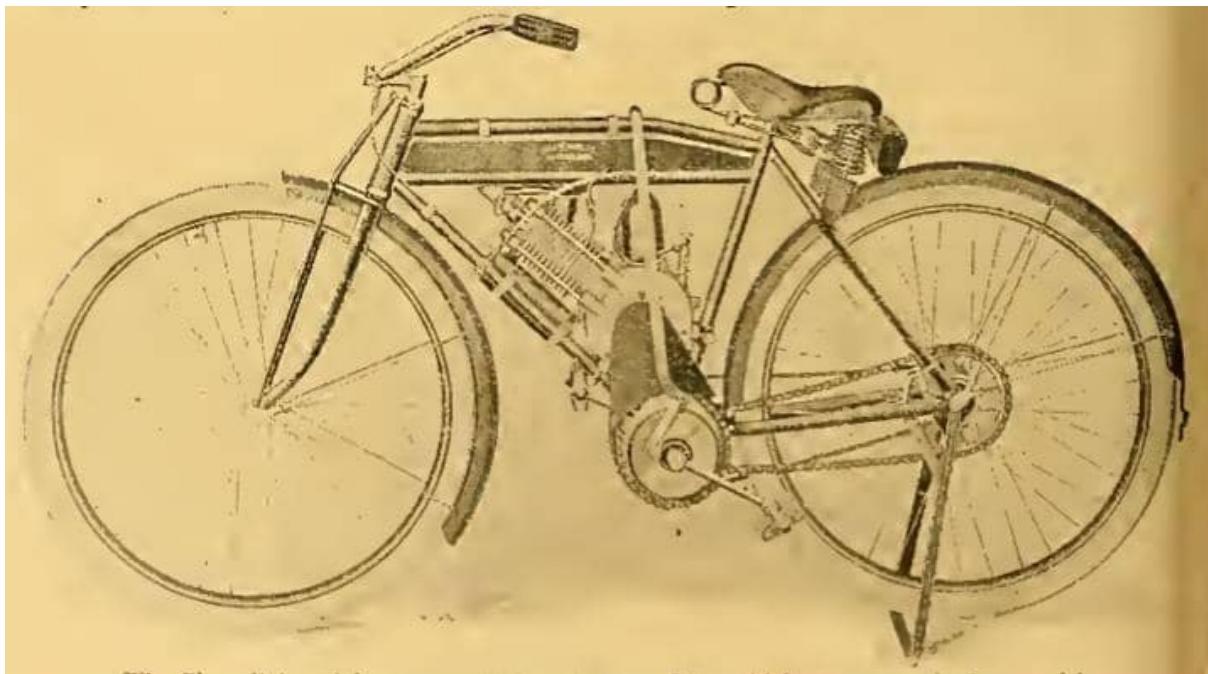
A 293cc JAP side-valve propelled the back-to-basics Kingsway which was priced at £55 complete with B&B carb, Bowden front brake, Lycett pan saddle, Best & Lloyd drip feed, alloy footboards and Avon tyres. A two-speed gear cost an extra seven quid.



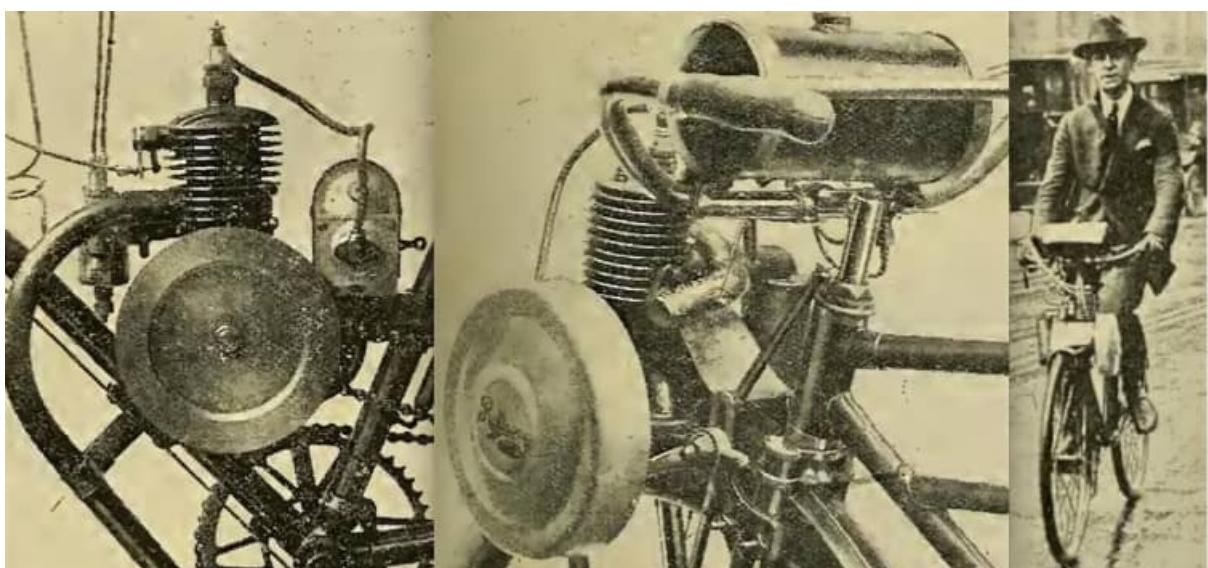
To distinguish the colonial Excelsior from the true-blue British Excelsior it was renamed the American X. With the new name came a striking blue-and-gold livery (with a big X on the tank), a front end that was a beefed up version of the four-pot Henderson's and "many modifications of a distinctly beneficial character" including "the return to British practice of utilising a cable, in place of rods, for the operation from the off-side handle-bar grip of the Schebler and a Klaxon horn".



EJ Norton of the Coventry Welding and Engineering Co developed the Springwell short-wheelbase frame with swinging arm rear suspension featuring a long, laminated leaf spring; a similar spring sprung the sidecar chassis. The Blue 'Un didn't bother with the engine but reported: "A short run proved the efficiency of the springing beyond question, no undue shocks being observed when passing over the most atrocious road surfaces." And it added: "We understand that Mr Norton would consider offers for the manufacturing rights of both the spring frame and spring sidecar chassis."

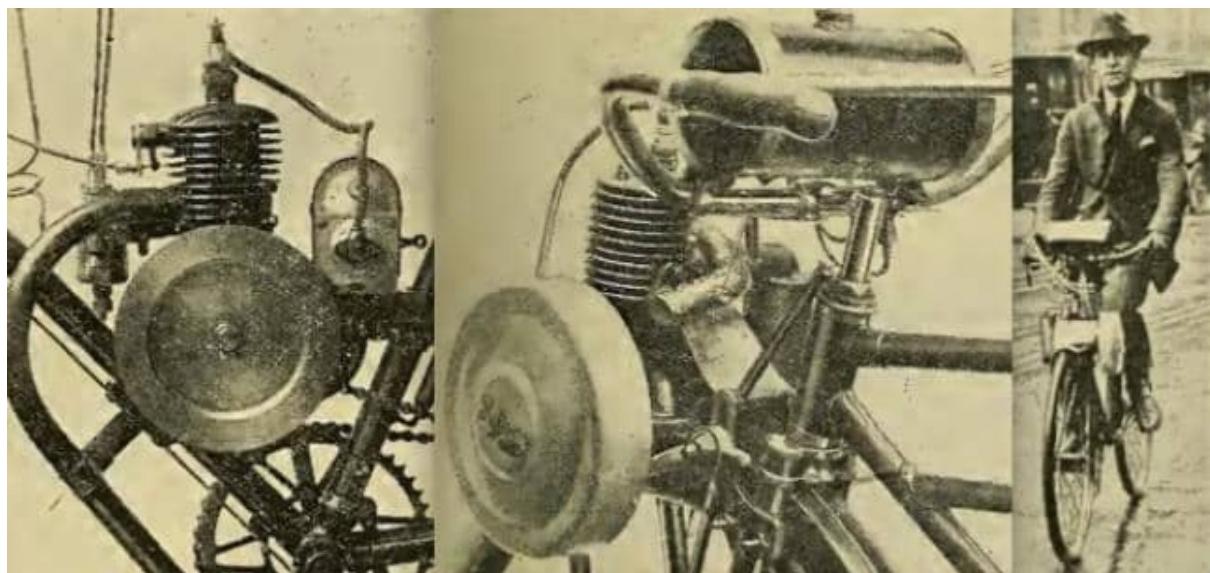


The Motor Cycle, in delightfully superior mode, described the American-made 2½hp Shaw as "a lightweight of the type in vogue in this country about ten years ago...It may be described as a step between the motorised bicycle and the lightweight proper...We understand that there is a brisk overseas business for this machine for short journeys and for general utility purposes where passable roads are encountered. This type of motor cycle is not common in this country at the present time."

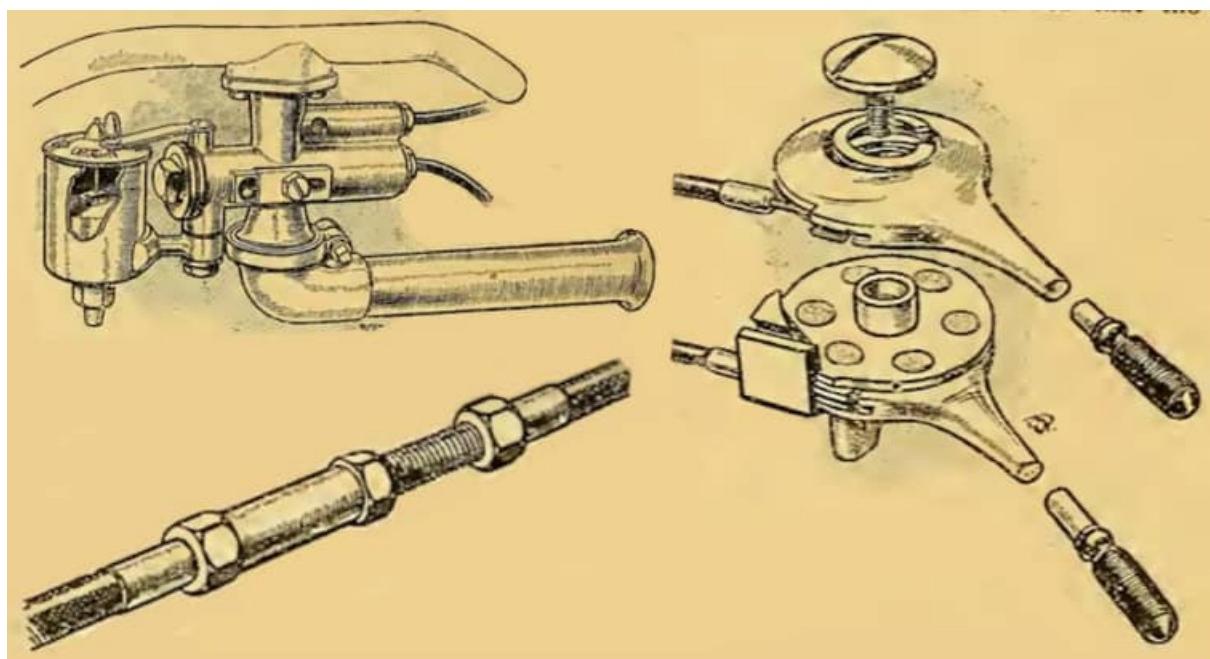


Left: "We may say that the neat attachment, weighing under 21lb, which is marketed by the Harwood Motor Co, Long Lane, Bexley Heath, Kent, gives considerable promise both from our experience when riding the machine, and from the general arrangement of the power unit." The 110cc two-stroke single clamped to the bicycle downtubes and drove the rear wheel via a chain to an auxiliary sprocket. It incorporated "a neat cushion drive" and a four-pint fuel tank which was claimed to give a range of 75 miles. Centre: "The Rollaway motor cycle attachment for pedal cycles was recently introduced into this country by Mr Claude Golden of the Cosmo Commercial Corporation, New York City, USA". The 104cc two-stroke weighed 20lb, was rated at 1hp and drove the front wheel "by means of a cast iron pulley shod with rubber". Right: "The

Rollaway friction-driven auxiliary attachment being tested under adverse conditions on a rainy day in London."



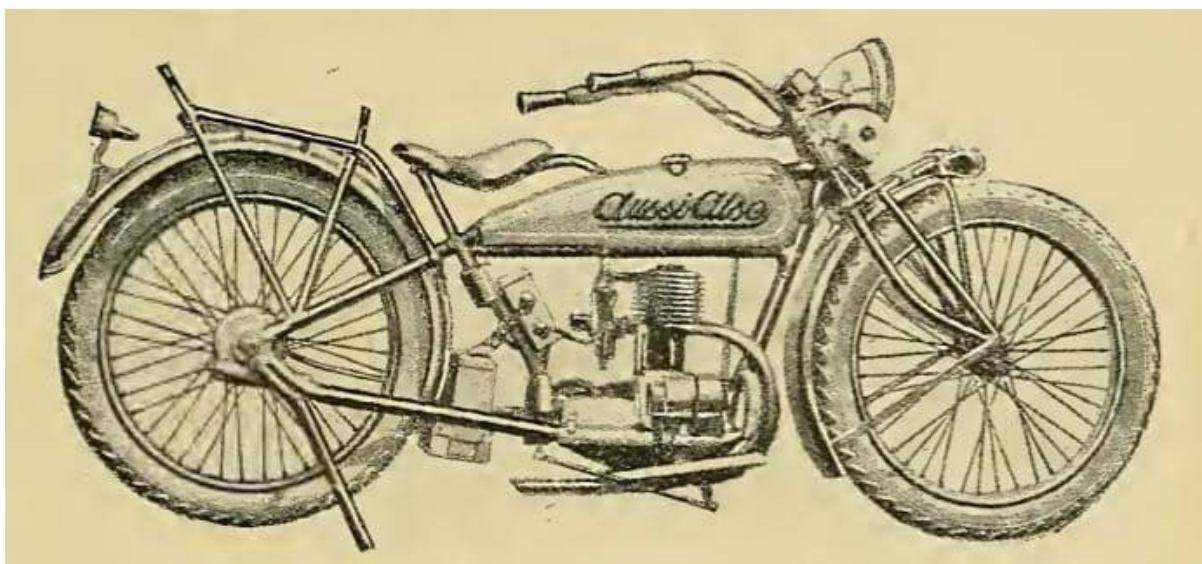
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Mr Binks adapted his popular three-jet carb to suit flat twins, not least the popular 3½hp Douglas. Following a little fettling *The Motor Cycle* reported: "For some time we used the

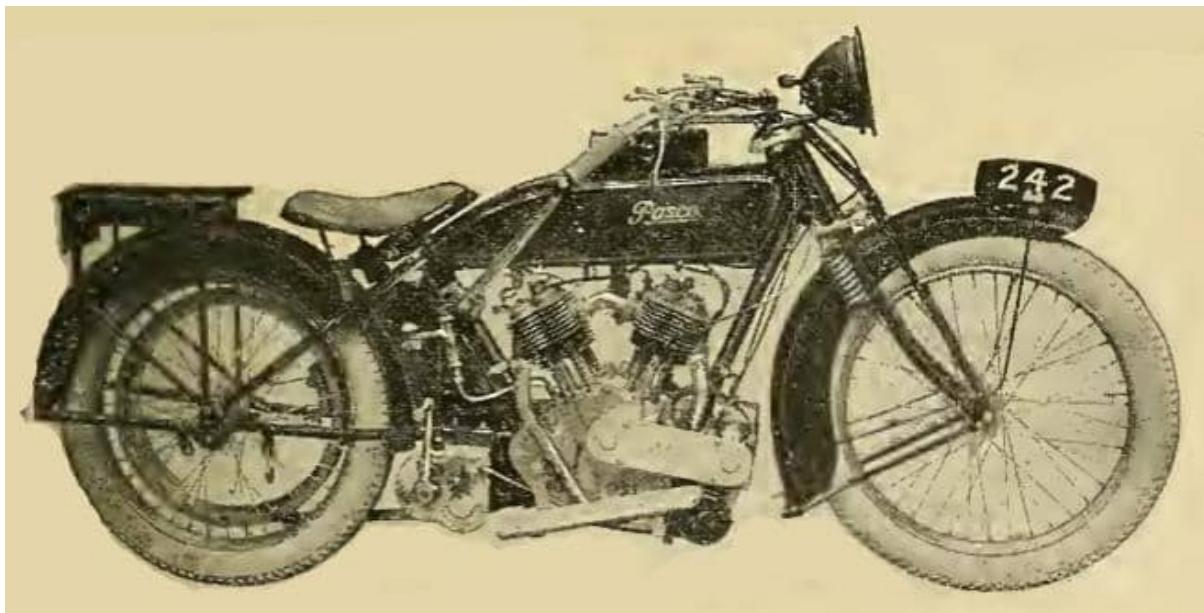
carburetter with the utmost satisfaction. The wonderful slow running and excellent consumption obtainable with this instrument were never equalled by any of the four other types of carburetter tested on the same machine. Binks also designed a cable adjuster that became ubiquitous and a throttle control, of the type that also became ubiquitous for choke and spark control, but incorporating "a miniature cork clutch" for a smooth action.

"AUSTRALIA IS TO PRODUCE its own motor cycles. True, only a few firms have started to make machines, but if they are successful others are bound to follow suit, and a field for export trade will gradually be lost to both American and British manufacturers. One of the Australian produced machines is known as the Aussi-Also, is all-Australian, and the price mentioned in its connection is so low that without doubt it would have a strong appeal with British motor cyclists...The engine is a large two-stroke, claimed to develop 7hp. Mechanically, the machine breaks new ground by having the two-speed gear box embodied in the crank case, and by driving with a shaft and worm via a universal joint; it is therefore unaffected by wet when fording streams...this model is not designed for sidecar work, a more powerful model with twin cylinders arranged tandem fashion being in process of evolution for this purpose. The Delco system of combined lighting and ignition is fitted as standard, the dynamo taking the place of a magneto...It is advertised as designed by Australians,



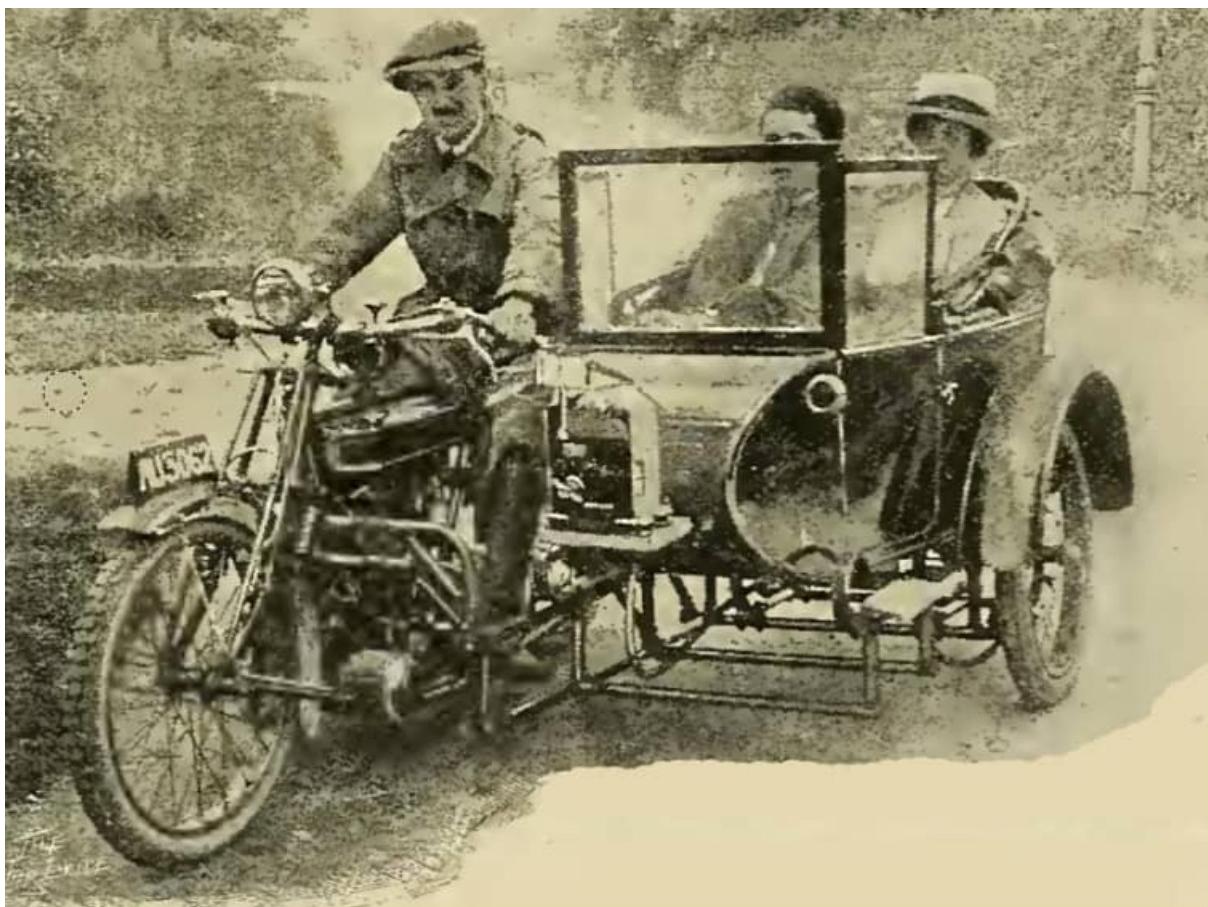
"The Aussi-Also, an all-Australian machine with shaft drive and large two-stroke engine."

built by Australians, for Australians...This type of engine was adopted for its simplicity, as the average 'Aussie' is a slap-dash' individual not accustomed to fine machinery...A large factory for mass production has been erected, but labour troubles at present prevent it working to its full capacity, and delivery cannot be promised within four months of date of order. The second machine is a JAP-engined model known as the Pasco, and is manufactured by Messrs McCrae and Pasco, 242, Elizabeth Street, Melbourne, Victoria. The frame, it will be observed, has a curved top tube, and possesses graceful lines, while Druid forks are fitted. The mudguards are wide and have deep valances. The lubrication is by a force feed pump combined with a drip feed attached to the lubricating oil tank fitted to the rear, behind the saddle tube, while the transmission is chain-cum-belt through a Sturmey-Archer gear. Several patents have been incorporated in the Pasco, namely, a patent toolcase underneath the carrier, and a locking device consisting of two lugs brazed to the stand and joined to the stays so that a padlock can be passed through without there being any necessity to use a chain."



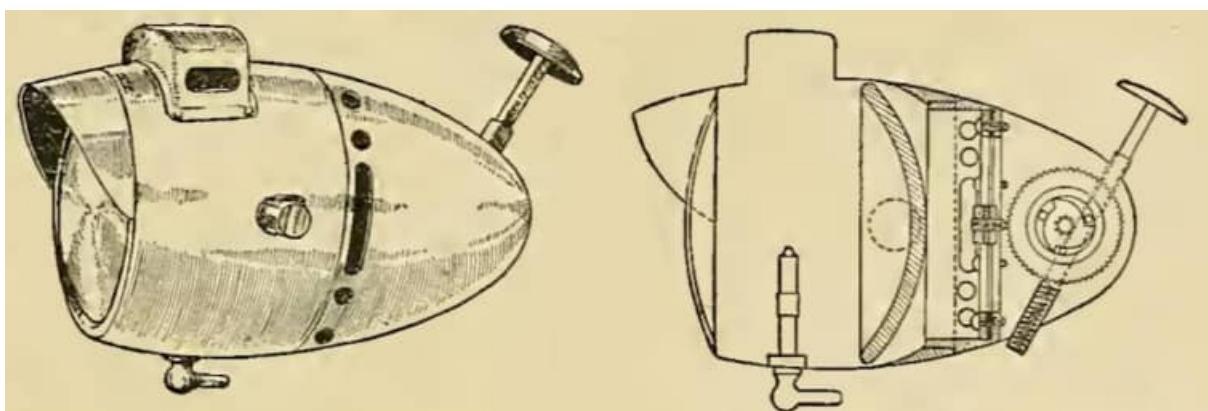
"The Pasco, another Australian-built machine, following American lines but embodying British components."

"A COMPANY IN NOTTINGHAM IS PUTTING into service a novel sidecar taxi, seating two persons side by side. Nottingham, true to its tradition as an up-to-date city, is the first in the British Isles to adopt this innovation. Permission was granted by the Nottingham Watch Committee with the distinct understanding that only ex-service men must be employed. The fare is to be at the old rate of 1s for the first mile and 8d a mile afterwards. These little vehicles should be particularly adaptable to commercial travellers carrying light samples; also for touring purposes, for which special low rates will be charged. The sidecar is fitted with a leather hood and celluloid windscreen. In addition, there are side screens that can be raised at will and are held in position by a catch, thus making the sidecar absolutely weatherproof. The taximeter (which is driven from the sidecar wheel) is fitted on a small platform at the front of the sidecar, so that the passenger can read the dial while seated. The machine is a 6hp Campion, and with two passengers second gear is only necessary on the steepest hills; in fact, it has been proved much handier than the ordinary taxicab. The company intend having half a dozen outfits running within a month."



"The first taxi-sidecar to be officially passed by Scotland Yard. The body is of the two-seater type, and the machine a Campion."

"IT HAS BEEN FREELY STATED by some that the time for reliability trials is past, and that, following the history of care, motor cycle trials will become gradually fewer in number until they cease to exist, except as sporting club events. On the other hand, trials are actually multiplying in number to such an extent that, not only is every Saturday replete with fixtures, but there is an overflow to Sundays...though social runs in comparatively small bodies are popular with club members, and do nothing but good if reasonably conducted, the passage of large numbers of motor cyclists, especially through quiet villages, is apt to disturb the peace of the inhabitants, and thus becomes a cause of ill-feeling towards motor cyclists in general."



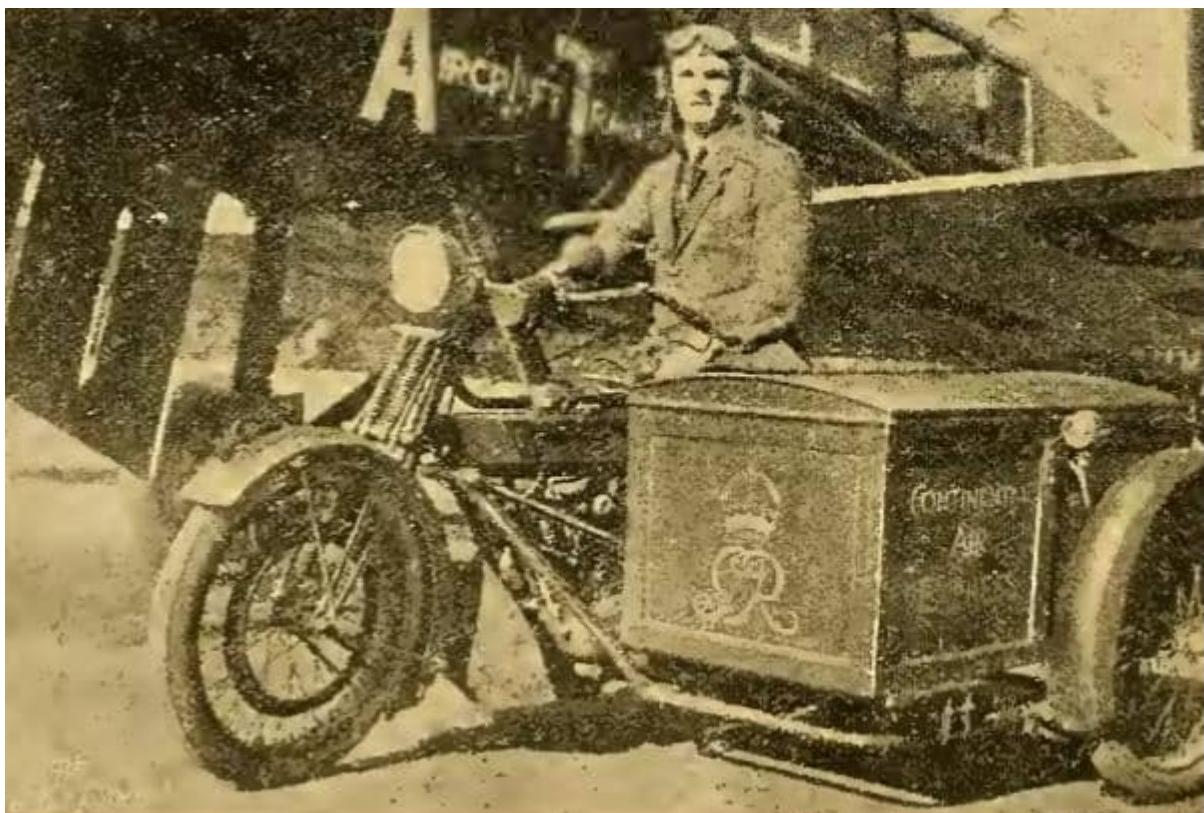
Designer AW Taylor patented a combined headlamp and horn and indicated that he was "willing to negotiate with manufacturers".

"IN DENOUNCING THE IMMENSE WEIGHT of the average modern solo machine," Ixion remarked, 'Kuklos' (of The Daily Mail] speaks for a very large public, whose custom the trade will be scheming to obtain as soon as supply has overtaken demand. I am in the mood to endorse his remarks, seeing that recently, in the endeavour to extricate my touring machine from a loose box which it shared with three push-bicycles, I nosedived over the saddle and marked my proboscis severely on the knob of the gear lever, just as the motor and myself crushed the three push-bicycles into a heap of spillikins. It follows that I perused with cold hauteur a letter to hand next morning imploring me to press for a British four-cylinder with shaft drive, four-speed gear, dynamo lighting, and electric starting."

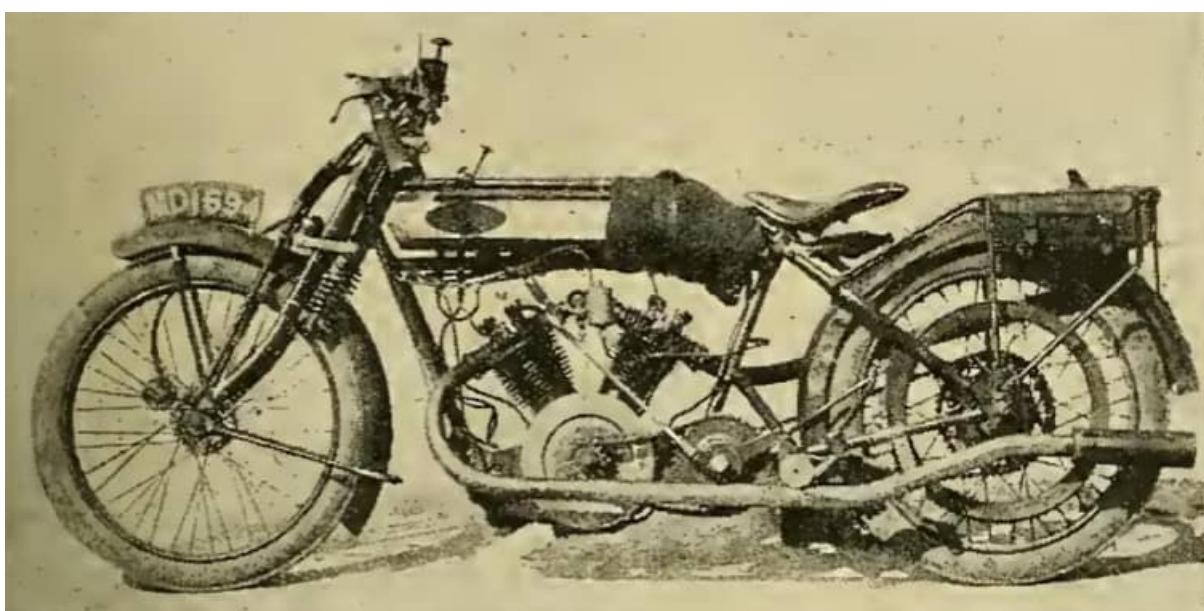


"At first sight a large road staff for testing Bowden wire suggests Heath Robinson, and it may surprise motor cyclists generally to know that a really large staff is used by the makers of Bowden wire to test their various specialities. The road test is the only safe means of trying out the efficiency of anything connected with a motor cycle."

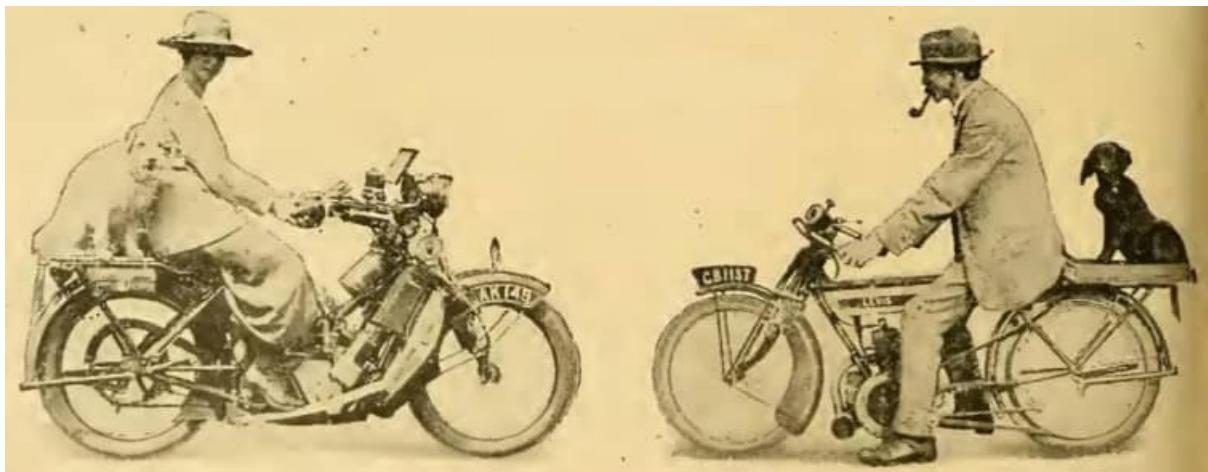
IXION SOMETIMES REVEALED AN ANARCHIC side to his character: "From time to time quite illegal and interesting races are organised by local riders, generally as the result of a bet. The hair of the BMCRC would doubtless stand on end at the idea of starting a Sunbeam, a Scott, and two ex-WD Douglasses level sans handicap; and the ACU would certainly take punitive measures if it had official cognisance of such an event on the public road. Nevertheless, such things occur. The prime necessities are to find a safe, straight, piece of road—since the quartet must be started abreast, seeing that Mr Ebblewhite cannot be engaged for such jobs; and to divert all the local constables by Sinn Fein tactics. Field glasses will show when the road is clear, and if the oddly-assorted machines are all elderly and in private ownership a good finish is quite likely to result. It is a great pity we cannot rig up such events on Brooklands, but the clever man, the shamateur, and the camouflaged trader would ruin them."



"A mail tender. Considering the economy of the modern sidecar, it is surprising that more are not used for rural mail service. Before the war there were many in use, and above is depicted a Royal Enfield used as a tender between the GPO and the Croydon Aerodrome, carrying mails for despatch by aerial post."



"Another V-twin with an outside flywheel. The 8hp Duzmo has overhead valves and is practically a duplication of the well-known single."



"The motoring dog is as much a reality as the motoring child, and the intelligence of the canine pet in connection with motor cycles is sometimes almost uncanny. For example, it can distinguish the engine note of its master's machine from others which may be in the vicinity. Above are depicted a lady and her pet on a Scott, and a Clitheroe rider, Mr GA Earle, who regularly travels with his dog on the carrier."

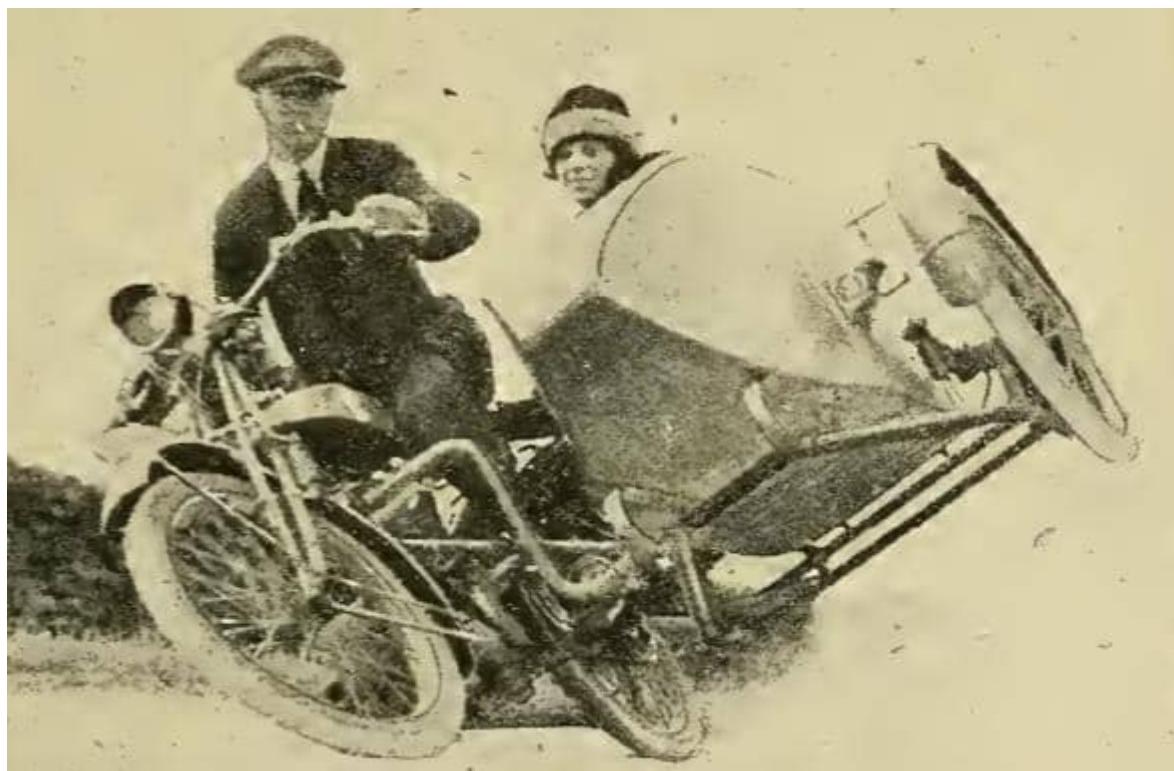
"UP TO THIS YEAR motor cycling in Belgium has been under the care of the Belgian Royal Automobile Club, but now the affairs and welfare of Belgian motor cyclists have been delegated to the Federation of Belgian Motor Cyclists by the EA.B. The first active work of the new body was to attend the FICM Conference in Paris, and then to meet the delegates of England and France."

"SINCE AMERICA PRODUCED TWO spring frame machines, one of her motor cycle journals appears to think that USA has a monopoly in brains so far as spring frames are concerned. The following is culled from a recent paragraph: 'Over in the land of Johnny Bull the riders are tortured with about 700 varieties of spring frame. Every British trade paper has photos of new types, each one worse than its predecessor. The one ambition of the designers seems to be to depart entirely from the conventional leaf springs which have proved so successful.'"

"A CONFERENCE TO CONSIDER the development of roads throughout the Empire is being arranged by the Imperial Road Transport Council."

"ALTHOUGH THE TWO-STROKE PRINCIPLE is of about the same age as the Otto cycle, its progress in the motor cycle world is of comparatively recent growth. After ten years' four-stroke development, the Scott engine more or less burst upon the public as a revelation, but it was not until some time later that the Levis and Connaught air-cooled engines showed the latent possibilities of the type; indeed, it may be said that these were the fore-runners of a new trend of design. Latter-day progress has accepted the air-cooled two-stroke as a type well worthy of the concentration of much designing ability and manufacturing organisation. The result of this effort is now beginning to show itself. A two-stroke engine has propelled a machine round the TT course of 188 miles at an average speed of 38.1mph; another has made twenty-five consecutive non-stop climbs of the famous Old Wyche at Malvern (one of the steepest test hills in Great Britain); whilst the latest reports tell us of yet another machine of the same type which has averaged 41.71mph for twelve hours on Brooklands, thus creating new records, and, incidentally, being the first two-stroke to achieve a success of this nature. All these performances have been accomplished on air-cooled engines of less than 350cc capacity; and,

in view of such results, there can be no doubt that this type of engine is now fully entering into its own."



"Lifting the sidecar wheel at speed—a demonstration oF skill, nerve, and the strength of the machine. The Norton, with Henderson sidecar, depicted above, is driven by A Fisher of Sheffield, who was a DR during the war."

"WHEN A MOTOR CYCLE IS IN a waggish mood, it can be almost as whimsical as a woman," Ixion noted, "and I have just heard of a particularly elfish machine, which puzzled an experienced rider for days. The engine was in perfect mechanical order, the ignition was superb, the jet was in action on aviation spirit, all controls were operating, and yet the behaviour of the machine was eccentric to a degree. Sometimes the engine would start at the first kick; sometimes it took nearly an hour to get it going when its reluctance would suddenly cease without apparent rhyme or reason. Once started, its subsequent behaviour was equally erratic. One day it would be as obedient as de la Hay's Sunbeam when supertuned for a stunt. Then without warning it would go completely crazy, slow down" when it should have accelerated, accelerated when it should have slowed down, or even stop altogether and refuse to restart. Occasionally a fit of misfiring would intervene, and continue for various periods. These symptoms became a regular nightmare. The solution was ridiculously simple at the finish, and I will publish it in our next issue after amateur physicians have had time to prepare a diagnosis."

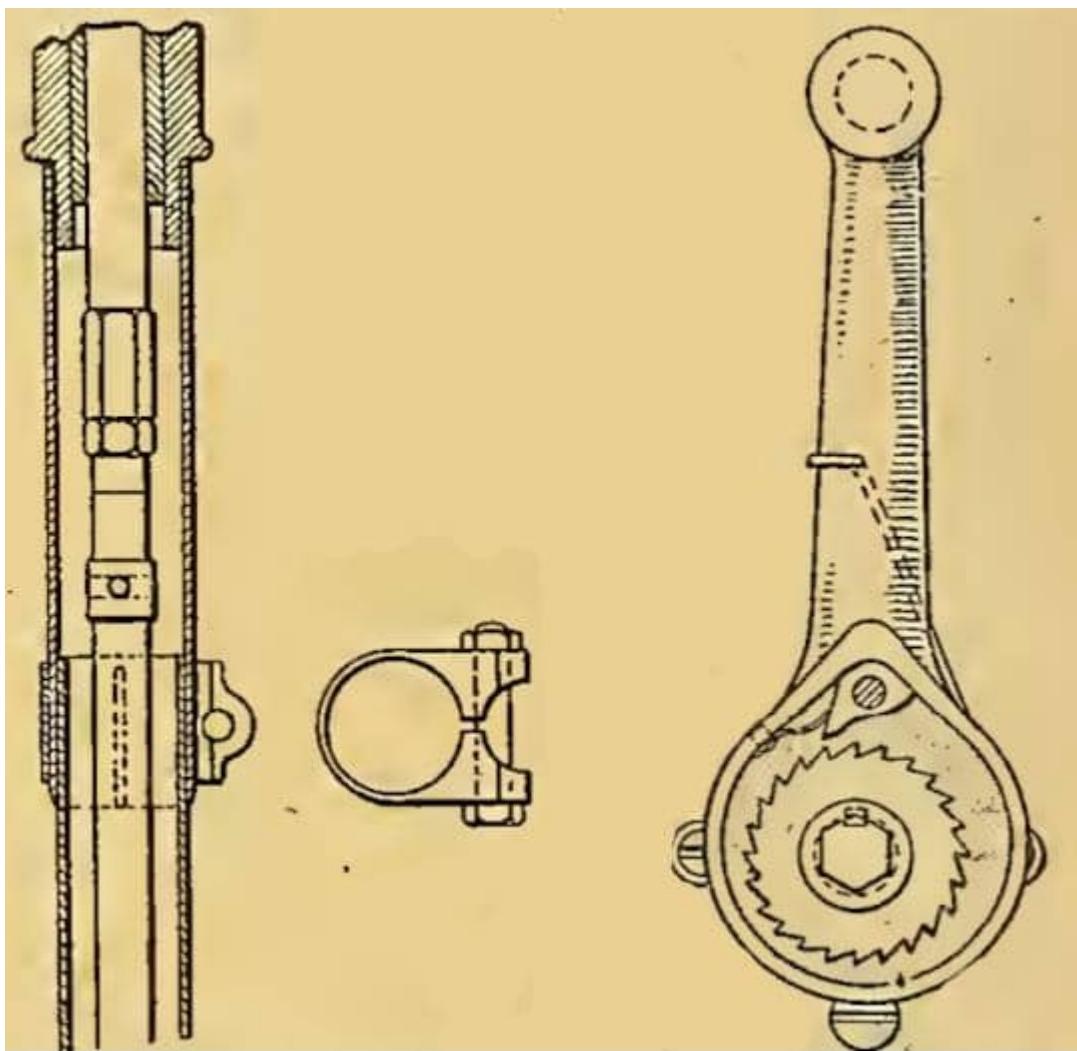
"IT IS UNNECESSARY TO POINT out the obvious advantages of four-cylinder motor cycles; these have many times been dealt with in your columns. It does, however, seem necessary to impress on the British manufacturer that a ready sale awaits a machine of this type, constructed on sound engineering lines. Four-cylinder motor cycle development has hitherto been left to the Americans, and to the famous FN Co. Is it not now time that Britain took a hand, and secured both the home and the colonial market which undoubtedly exists for these machines?

S Latour Hordle."

"SIR,—IXION'S COMMENTS ON THE fitting of drive chains on spring frame motor cycles were most opportune. A manufacturer apparently sets out to produce a spring frame mechanism which does not absolutely infringe a competitor's design, and then decides to connect his driving wheel to his countershaft by means of a chain, forgetting that a chain drive is just as important a piece of mechanism as the spring frame...The ideal arrangement would, of course, be a spring frame, with the centre of pivot of spring coincident with the countershaft sprocket spindle, and, to my mind, the maker who first of all introduces this arrangement will reap the benefit to be derived from introducing an efficient spring-frame design to the motor cycle public.

T, Altringham.

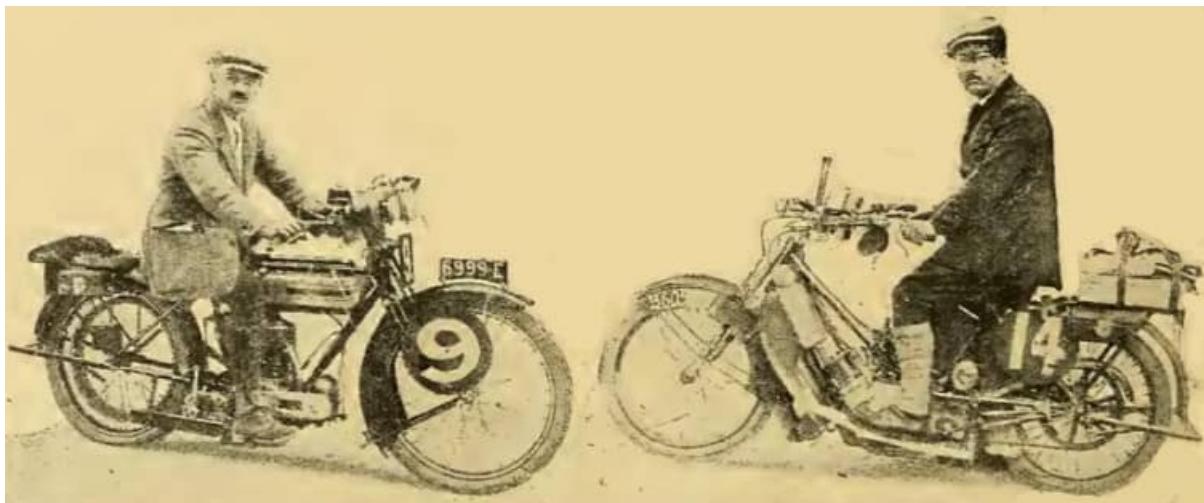
"Mr TL Williams has protected a very neat ratchet device for use on kick or handle engine starters (patent 134,990 4/12/18). A ratchet wheel is concentrically mounted on the shaft which it is desired to rotate. This ratchet lies within a circular recess formed in the end of the kick lever, but this recess is eccentric in relation to the shaft. The pawl is mounted inside the recess, and, as shown, is clear of the ratchet in the idle position, and is also cleared if a back fire occurs...Humphries & Dawes, in conjunction with Mr CH Sims, are out to protect us from the rage which arises when we try to secure a delicate adjustment of a tappet rod, which is either well and truly rusted up, or has its threads so choked with dirt that we are tempted to accept a makeshift setting. They achieve this ideal very simply. The business portion of the adjustment is sheathed in two tubes of such diameters as to slide within each other. Adjustment complete, the tubes are set to cover the parts, and a spring clamp is bolted round them at the point where they overlap (patent 136,386 20/2/19)."



Messrs

Humphries, Daws and Sims patented a pushrod tube; TL Williams patented kickback protection.

"IT WAS MOST DISAPPOINTING to the Union Moto Cycliste de France that their first post war six days trials in the French Alps attracted so few entries...Bad luck seems to have pursued the organisers this year and every sportsman will no doubt sympathise with them. First of all, the unsatisfactory ending of the Paris-Nice Trial, which was declared null and void owing to the breakdown in the checking organisation, seriously affected the number of possible entries from England, although the Paris-Nice event was not organised by the same body. Then M Mahien, who was entered on a Rudge, had a fatal accident. A Gillet rider—Sermens—was prevented from starting by illness...competitors who knew the roads were of the unanimous opinion that no touring competition previously held would prove so strenuous." In the



"English machines in the Trial. (Left) Gabriel on a Triumph. (Right) Graeme Fenton who is riding a Scott."

event only a dozen solos left Grenoble: four ABCs, two Scotts, two Triumphs, two Motosacoches, an Indian and a Condor. They were joined by two combos (a Motosacoche and a Gallien) and a Morgan. "The piece de resistance was reserved for the last day in the Alps, when the competitors had to climb to the top of Galibier, 8,392ft above sea level, with the Lautaret Pass at over 6,500 thrown in as an additional morsel on the way up. Lunch was taken at St Michel de Maurienne, and during the afternoon a very difficult task was set the competitors with the four tunnels, Col de la Croix de Fer, and Col du Glandoii. The roads...were exceedingly rough, winding, and narrow, and any delay by reason of punctures was practically impossible to make up...After the four days in the Alps the machines were placed on exhibition at Grenoble, thus giving the riders an opportunity of resting for a day before taking the two-stage trip to Paris via Macon and Nevers." Switzerland won the team prize and would therefore host the 1921 ISDT. Of 12 finishers eight had clean sheets; all 12 were awarded gold medals: Solos: 350cc, Condor (Morand); 500cc, ABC (Naas), ABC (Detruche), ABC (Borgotti), Motosacoche (Robert), Motosacoche (Rolly), Triumph (Gabriel); 750cc, Scott (Barthélémy), Triumph (Pinney); 1,000cc, Indian (Bernard); sidecars, 1,000cc, Motosacoche (Gex); cyclocars, 1,100cc, Morgan (Sandford)..



"Borgotti (ABC) in the heart of the French Alps. (Right) Bernard (Indian) re-starting from an Alpine village."

"THE GENERAL LACK OF SUPPORT of the International Six Days Trial just completed is a matter for regret. The apathy of the French trade is partly responsible, and no doubt the unfortunate ending of the Paris-Nice event has had some influence upon the withholding of British support. As secretary of the Federation of ' International Motor Cycle Clubs, the Secretary of the ACU might have done more to exploit the Trial had not the Tourist Trophy race taken precedence. When we regret the lack of support on the part of British manufacturers, it is not only the national aspect we have in mind. After all, the ACU Six Days Trial and the Tourist Trophy Race are international events, and they receive very little support from makers outside this country. Our chief concern is that manufacturers have neglected to avail themselves of an opportunity to test their products under conditions impossible to obtain in any other event convenient to our shores, and very few British designers have the slightest conception of the nature of the country in which the Trial has been held. British motor cycles are not intended for British motor cyclists only; they are needed by overseas riders, some of whom live thousands of feet above sea level in hot countries. The FICM has an important duty to perform. It has to encourage international competitions. Friendly contests between the nations are most desirable, and, if properly run, encourage good feeling and a friendly rivalry which cement the good friendship of the past. It seems desirable that the Manufacturers' Union should meet the Auto-Cycle Union and discuss the matter of these international trials, as the trade seems to have a very hazy idea as to which to support."



ISDT gold medallists: Gabriel (Triumph); Gex & Gex (Motosacoche) on Col de Galibier, the highest point on the course ; Barthelemy (Scott).

Carte des environs de Grenoble où se dérouleront les " 6 jours motocyclistes " du 26 au 30 Juillet 1920

Les chiffres 1, 2, 3 et 4 indiquent les 4 étapes de tourisme.

LUNDI 26

1^{re} Etape . . . 244 km. 700

MARDI 27

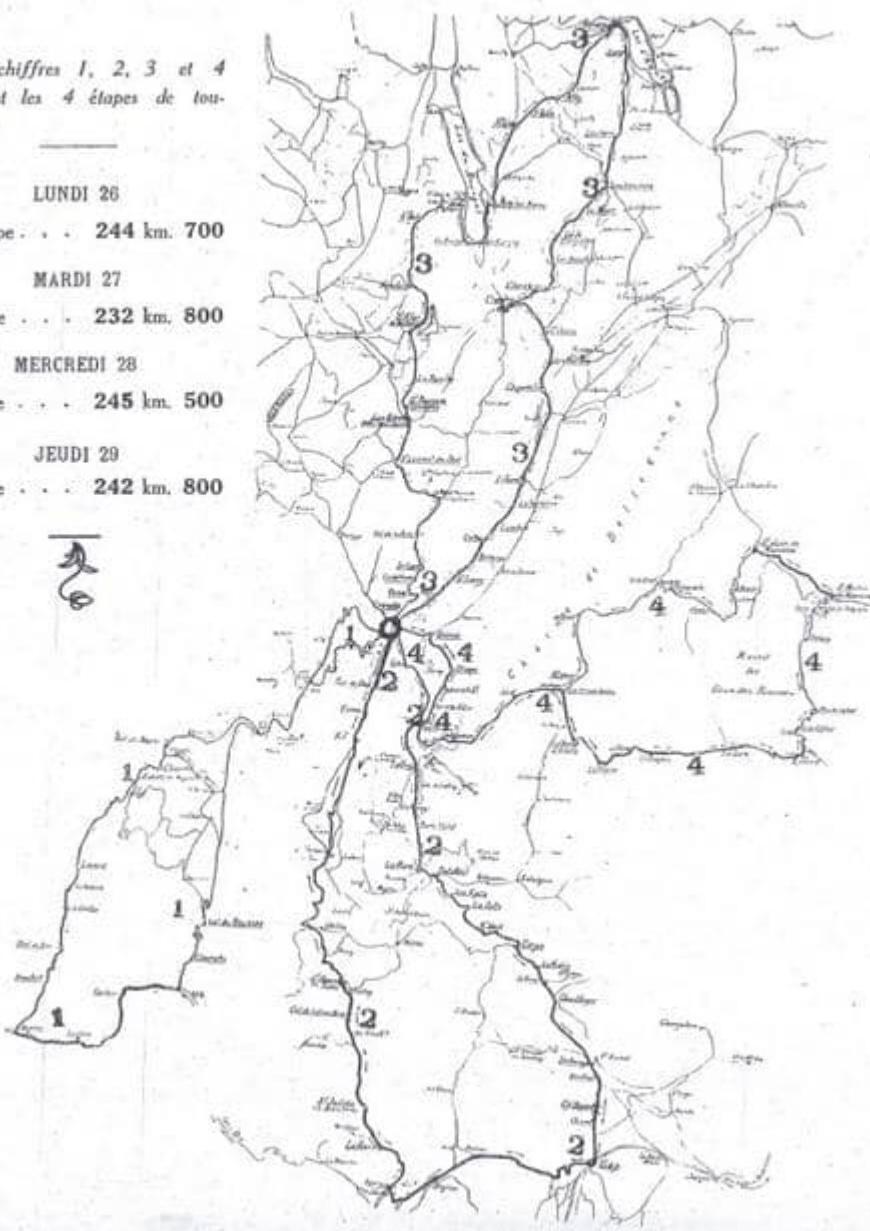
2^e Etape . . . 232 km. 800

MERCREDI 28

3^e Etape . . . 245 km. 500

JEUDI 29

4^e Etape . . . 242 km. 800



French

motor cycle magazine *Moto Revue* published a rather fine map of the ISDT.

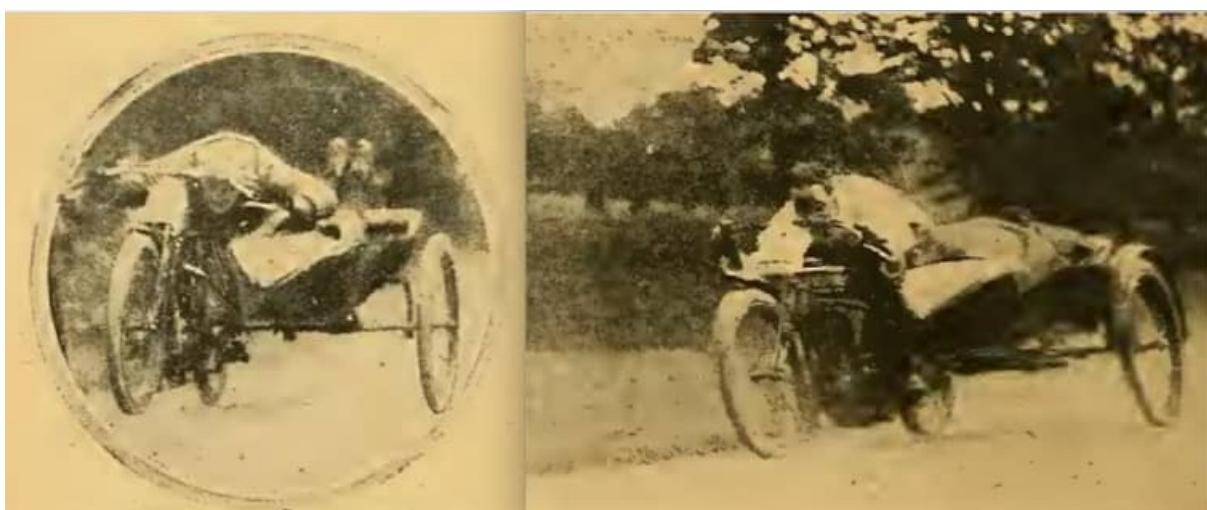
"IN WINNIPEG, CANADA, THE AUTHORITIES have a way of their own of dealing with those who exceed the speed limit. For the first offence, a fine is imposed; the second, a fine and the machine is impounded for a month; third offence, the offender is locked up for a month. Lastly, it is said, the culprit is to be incarcerated in a lunatic asylum. Already, we are informed, several cars have been confiscated."

"MOTOR CYCLE POLICE VS CAR BURGLARS: Police Inspector Brunning, of Bromley, Kent, who on his three-year-old standard Douglas overhauled and captured burglars on a 30hp car, after a five mile chase on the London Road, is an old motor cyclist. For several years he owned an

Enfield sidecar outfit. He is a divisional police inspector, not a detective. Motor cycles are not yet issued to detectives, but no doubt will be as their value is realised."

"ANNOUNCEMENTS HAVE APPEARED in various journals concerning the recent decision to employ motor cycles in the detective branch of the Metropolitan Police...The machines employed are 4hp Triumphs, and are reconstructed Army models equipped with comfortable sidecars."

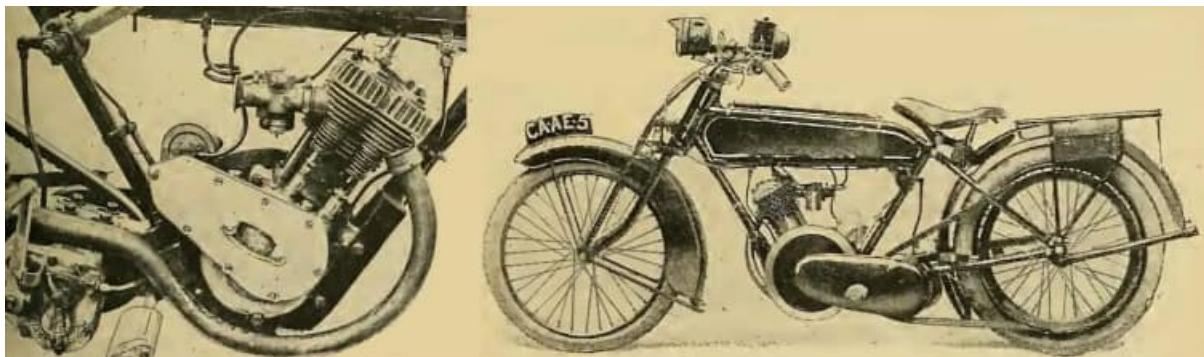
NO LESS THAN 450 COMPETITORS supplied a packed eight hours of competition in the open trials staged at Chatsworth by leading clubs from the East Midlands and Yorkshire—22 classes ranged from combos under 350cc to solos of unlimited capacity. Wolverhampton-made machinery was very much to the fore—more than 5,000 spectators watched a series of duels between AJS and Sunbeam in various classes, though Nortons and Harleys were also prominent. Top riders on show included HR Davies, G Dance and V Horsman.



"A study of HR Davies, who made good speeds with his AJS sidecar. (Right) A Norton at speed. Victor Horsman, who put up very good performances, travelling at over 60mph."

FOR SOME MONTHS PAST we have been in touch with the well-known firm of Powell Bros, Ltd, the Cambrian Iron Works, Wrexham, who have been quietly developing a new line of business which takes the form of a 4hp motor cycle...Having secured as designer Mr EA Burney, whose name is already well known in connection with the Blackburne and Burney machine, it is perhaps hardly surprising to find that the new engine is fitted with a large outside flywheel, but here the resemblance between the two engines ends, for many new and distinctive features are incorporated in the new Powell engine. Mr Burney, who became a despatch rider in August, 1914, and ended his war-time career in charge of a repair workshop, had many opportunities of studying motor cycles under the hardest possible services and, naturally, the results of his experience have been embodied in the new design. The engine has a bore and stroke of 85×96.5mm (547.8cc) and the cylinder is inclined forward at an angle of 30°. A detachable cylinder head is held down by four long studs, the cylinder itself being separately attached by nuts at the base of these studs...The engine is remarkably clean as regards oil leakage, and it has no awkward crevices or excrescences to collect mud, every corner being carefully rounded. Probably the disposition and arrangement of the large ball release valve has much to do with the fact that the engine keeps so clean... it is claimed that the engine unit complete with magneto and carburetter can be removed from the frame in ten minutes... transmission is by chain and belt through a Sturmey-Archer three-speed gear. The frame has a slightly sloping top tube

curved downwards at the rear, and a two-gallon petrol tank is fitted. Oil is pumped to the engine by a plain enclosed oil pump...the engine combines the slow tick over and excellent pulling powers, which go with a large outside flywheel, with the freedom and 'revving' qualities of the more usual inside flywheel type. A very fair turn of speed is available in spite of the fact that the machine which we handled is the first of its type, and remains unfinished in certain details, having fired for the first time a day or two before our trial...we feel justified in prophesying a rosy future for such an admirably designed motor cycle."



"Valve side of the engine designed by Mr EA Burney for the Powell motor cycle. Observe the cradle supporting the unit, which permits the engine, complete with magneto and equipment, to be removed from the frame in ten minutes. (Right) The new Powell engine in an experimental frame for testing purposes. Several amendments are likely in the production model."

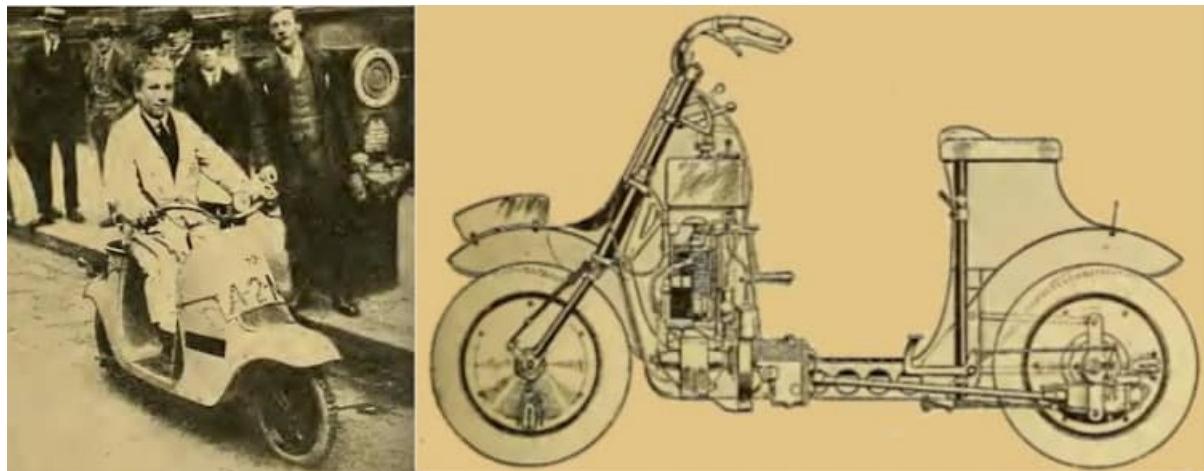
"AFTER THE PERFORMANCES OF the simple two-stroke in post-war reliability trials, and its success in winning The Motor Cycle trophy in the TT, it only remained for someone to break records on Brooklands firmly to establish this type of engine for every purpose...Stanley Gill, riding a 350cc Alecto, broke, among others, the ten, eleven, and twelve hours records in Classes B, C, and E, and the nine-hour record for Class B...We congratulate all concerned, especially Stanley Gill as the rider, and Cashmore Bros, the makers of the first two-stroke to secure long-distance records on Brooklands...Classes C and E are for 500cc and 1,000cc machines respectively, so Gill's performance on a single-cylinder air-cooled two-stroke is really remarkable."



Stanley Gill, riding a 350cc two-stroke Alecto, covered 500 miles 951 yards in 12 hours to average 41.71mph.

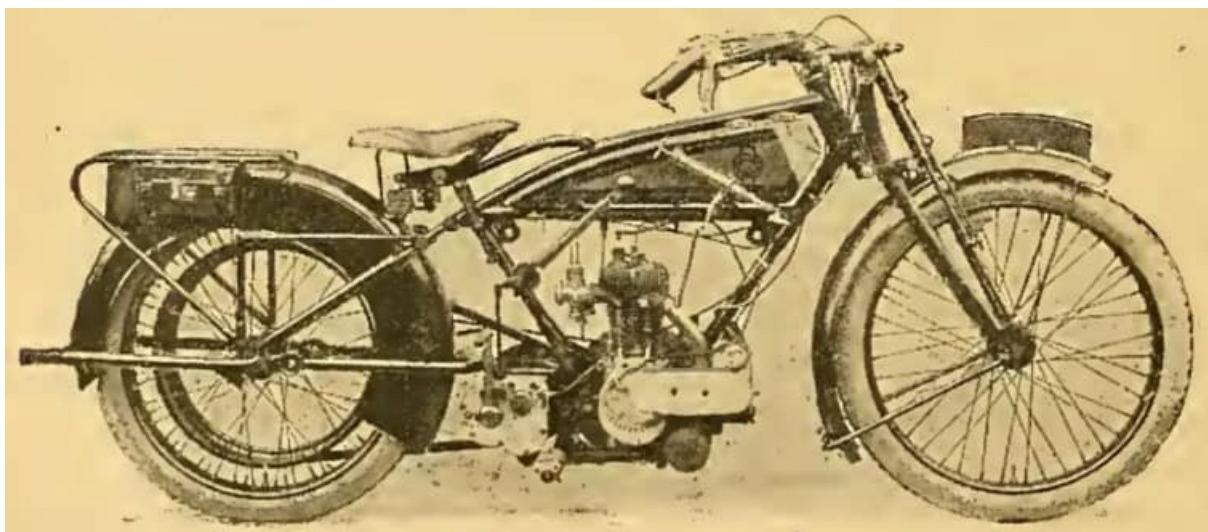
"POLICE PERSECUTION: ACCORDING TO a daily newspaper, a motor cyclist was recently summoned at York for allowing exhaust gas to escape from his motor cycle."

"THE LACK OF STANDARDISATION in carburetter controls was, in the opinion of a coroner's jury, responsible for a fatal accident in Norfolk recently."

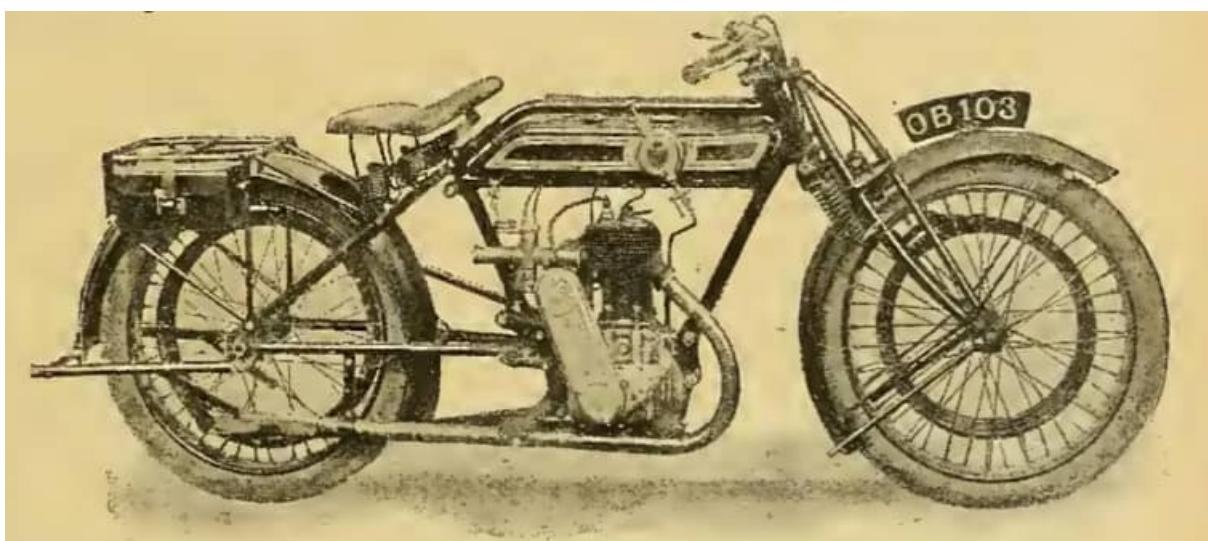


"Though from its appearance the Unibus is sure to be called a motor scooter, yet when one comes to consider the design of this machine, it seems to warrant a more dignified title, for it is a veritable miniature car on two wheels...Not only is the rider protected from mud and water thrown up on wet roads by the very complete mudguarding, but the engine is completely boxed in also, so that the rider's clothes are in no danger of becoming soiled with oil." To modern eyes the Unibus looks more 1950s than 1920; Under the skin was a 269cc two-stroke engine with a two-speed box and shaft drive with quarter elliptic springs at both ends. Two drum brakes were fitted, albeit both on the rear wheel. Starting was by a handle (with a ratchet) in easy reach from the seat, which covered a large luggage space.

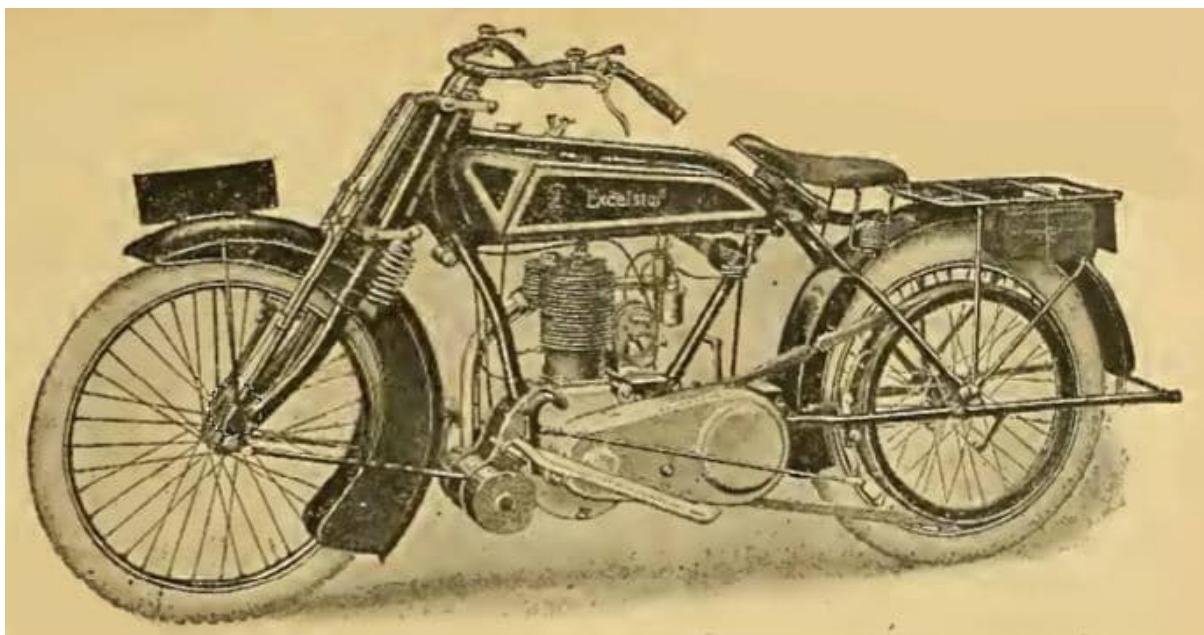
"QUITE A NUMBER OF BRITISH motor cycle manufacturers consider that in developing the De Luxe sidecar machine, another just as profitable field is being neglected. We refer to the dual-purpose machine—handy enough for solo work and suitably built for propelling a sidecar—which prior to the war was the most common type of motor cycle on the market, and which has subsequently suffered no loss of popularity. The Rex Motor Manufacturing Co, Coventry, hold this opinion, and for some time their experimental department has been at work on a new machine that, although following the main lines of the Rex twin model and the Model 77 big single, is smaller, shorter, and consequently much lighter than those machines which were designed exclusively for sidecar work. The new model has extremely pleasing outlines, and since its equipment consists of very popular units—ie, 4hp Blackburne engine, Sturmey Archer gear box, 28×2½in tyres, Brampton forks, Rex cantilever saddle pillar, and adjustable handlebars, and its finish is the same which characterises all the company's post-war products, it will undoubtedly prove a very popular machine. Sidecar fixings are integral with the frame, and the rear stay lug is incorporated in both stays, so that the machine may be used for continental sidecars without alteration. A special sidecar is being produced for this machine."



"A Rex-Blackburne single, the latest double-purpose mount."



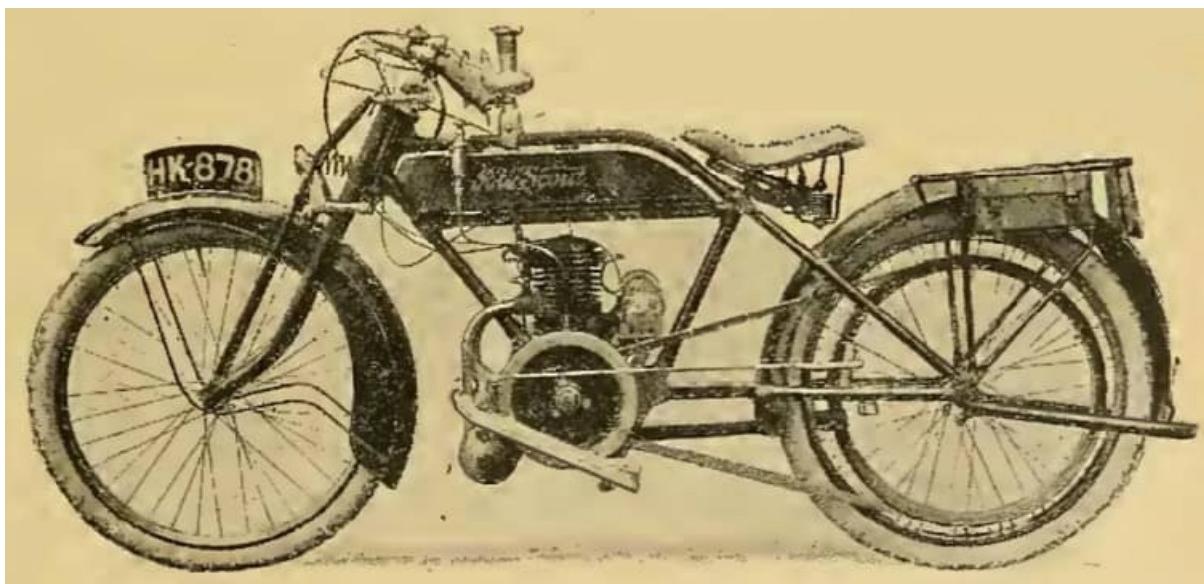
"Realising the demand among the young clubmen for a simple solo single capable of good performances in those local speed events so dear to the clubman's heart, the New Rover Cycle Co has of late been experimenting to speed up its standard TT model. It is capable of 75mph, and this without any suggestion of freakishness in the engine or a specially lightened frame. Parts of the engine have been redesigned, and stronger valve springs have been fitted, but otherwise the machine is standard, excepting the absence of a silencer."



"DESPITE THE GENERAL TENDENCY for the sidecar machine to become a de-luxe outfit with, in some cases, over-elaborated equipment, there are still manufacturers who appreciate the value of the market which exists for a machine at a more popular price. To render such machines a commercial proposition, many post-war luxuries, such as enclosed chain drive, dynamo lighting, hoods, screens, and detachable wheels, have to be omitted. Some, however, favour this simplicity. Among the several machines of this type now available is the new 4½hp Excelsior, which embodies an 86x112mm (650cc) engine, with which the makers were very successful before the war, and a conventional specification includes Sturmey-Archer gear, 650x65mm Dunlop tyres, Hans Renold 5/8×3/8in chain, 1in Dunlop belt, CAV magneto, Senspray carburettor and Druid forks. A coachbuilt sidecar is available; the makers are Bayliss, Thomas and Co, King's Road, Tyseley, Birmingham."



Czechs liked British bikes: "A scene at a speed event, the two machines shown being a Rudge and Douglas. A Clyno outfit; the lady, like her British sisters, is not content with the sidecar seat, but takes turns on the saddle. Two BSA enthusiasts, one of whom has lost an arm, the other a leg."



"One of the latest entrants to the lightweight market is a 3hp RW Scout motor cycle, which is equipped with a 73x76mm (318cc) Dalm two-stroke engine."

"SIR,—WITH REFERENCE TO YOUR short report regarding the excursion to Blea Tarn Pass by several well-known competitors the day following the date of the open trial held in the Lake District recently by the Cumberland County MCC, I think it only right that you should acquaint your readers with the following facts. I have no desire to depreciate in the slightest degree the climbs of this formidable pass made by G Dance, T de la Hay, G Wilkin, S Parker, etc, but in view of these fine performances it might be difficult for an outsider to understand why the Trials Committee of the club decided, after careful consideration, to omit the climbing of this hill from their recent trial. Several visits by members of the Trials Committee were made to this hill, and on every occasion we were there the surface was in an appalling condition. It was well nigh impossible for a solo machine to make a perfectly clean ascent. We have plenty of members of our club who climbed this pass, but, owing to the appalling surface, caused by the loose shingle, these riders had to use their feet to steady their machines on the way up. We were never able to get sidecars up with passengers sitting in a normal position in the sidecar, but with a passenger sitting on the carrier it was managed once or twice. Our committee reluctantly came to the conclusion that to include this hill in the trial would cause a tremendous amount of complaining through being baulked. We in this district are perfectly aware that the nature of our mountain roads is such that heavy rain has a binding effect on their surfaces, but never in our wildest dreams did we imagine that Blea Tarn Pass could be in such a passable state as it was during the week-end of our trial. The condition was entirely brought about by the perfect deluge of rain we had had for several days previously. The surprise was on a par with the one we experienced at the small quantity of water coming down the watersplash at Longlands ford.

WB Anderson, Hon Treasurer, Cumberland County MCC."

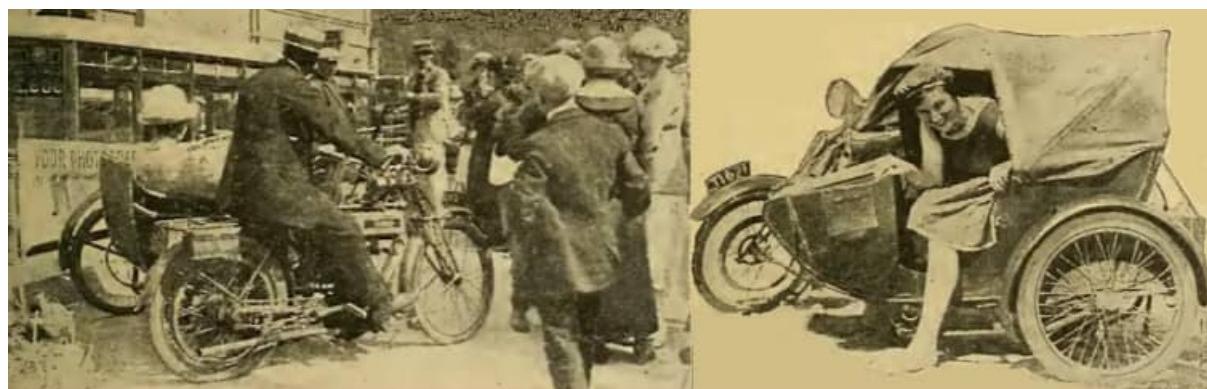
"SIR,—I HAVE READ WITH INTEREST your correspondent's remarks on Blea Tarn Pass. May I point out that the trip in question was organised by myself, and was the result of a wager made Westwood Wills and myself with certain officials of the Cumberland Club who claimed that a clean climb of this hill, without putting a foot to the ground, and at the first attempt, was impossible. As events proved, these gentlemen were mistaken, but whether the hill was in good condition that day or not, both Mr Wills and I are quite prepared again to accept a wager, and to essay a clean climb, when the hill is in the worst possible condition, the Cumberland Club to be

the judges in this respect.

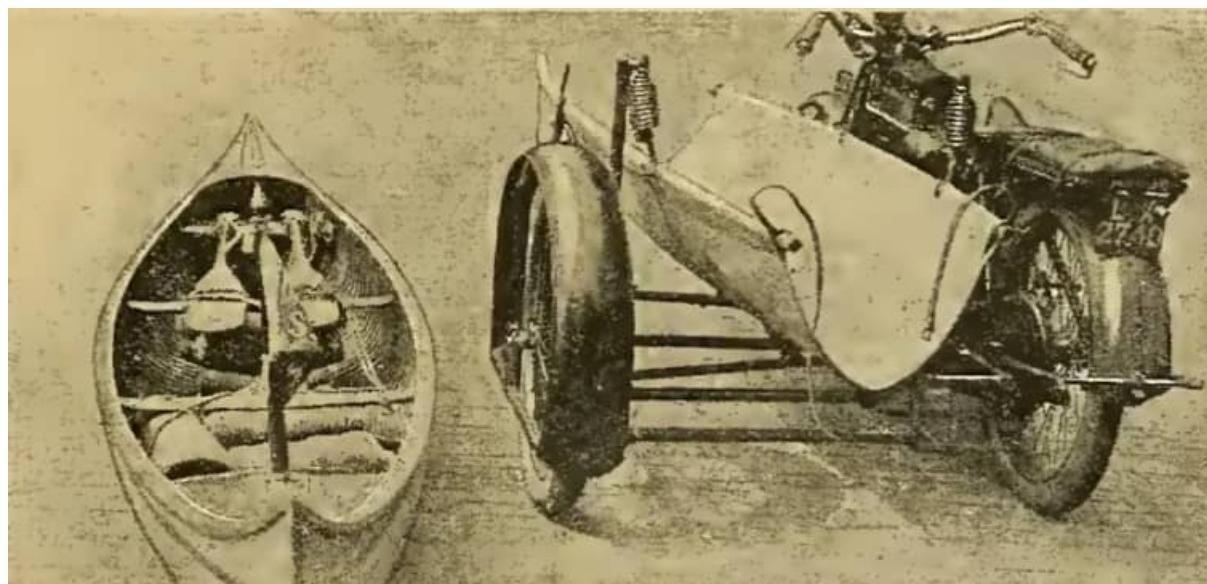
JA Newman, Hon Trials Sec, Worcester &DMCC."

"I DO 1,000 MILES TOURING MONTHLY for seven months in the year, but beyond the usual tool outfit supplied by the Douglas people, do not carry a single spare, except a belt and tube. My Douglas was received nine months ago and has gone perfectly, the plugs are still A1, valves quite unworn, and, what is more, in three long tours—London to Falmouth and back and a host of smaller trips this year—not a single part of the machine has shaken loose either on the road or off it. Therefore, it seems that the modern machine, if carefully driven and periodically examined, say, once every 1,000 miles, needs no spares, and can be thoroughly relied on. Re plugs: Two Lodge plugs lasted me 15,000 miles on a 1914 P&M, and gave no trouble. My present mount is very light on belts and tyres.

C M-T.



"One shilling while you wait: There are many people who enjoy the fun of make-believe—here are people posing in a sidecar belonging to the photographer who was doing good business in an inland watering-place, charging one shilling a photograph. Another use for the sidecar: With hood and screen in position it makes a convenient if somewhat cramped 'bathing tent'."



"A real boat body: Considerable interest was aroused in London streets recently when Mr Armstrong, of Messrs Ballard's Motors, drove this outfit with the canoe up to the City. One would imagine that such a lengthy body as the Canadian canoe entails—15ft long—would render the machine extremely unwieldy in traffic, but this is not the case, as Mr Armstrong turned the machine round in Tudor Street with the greatest ease, and after a short trial run, brought it up

alongside the pavement without overlapping it in the slightest. The beauty of the means of carrying the canoe is that it can be detached in about thirty seconds. It is held in a Willesden canvas 'hammock' and is secured by straps fore and aft, while amidships is a steel rod with a lever screw which keeps the canoe securely in place."

"THE THIRD REPORT OF THE Public Accounts Committee mentions that of the 351 motor cycles issued to the Ministry of Food during the railway strike, only 169 have as yet been returned to Slough. The matter is being further investigated."

"RETURNING TO THE USA after his trip to this country, Mr Arthur Davidson, of the Harley-Davidson Co, told an American contemporary that he had acquired an even higher respect than he possessed before for British business methods, sportsmanship, and savoir faire. 'We Americans ought to forget a lot of that stuff they fed us on in our schoolbooks,' he added."

"IT WOULD APPEAR THAT many people are apt to forget that many of our wounded soldiers are still in hospital. In this connection the members of the Surbiton & DMCC&LCC recently arranged a most successful outing, and conveyed about 50 limbless soldiers for a pleasant trip including tea at Reigate Hill. As we are told that many of the patients have had no such treat for many months we take this opportunity of reminding club secretaries that opportunities of combining a kindness with their own pleasure still exist."

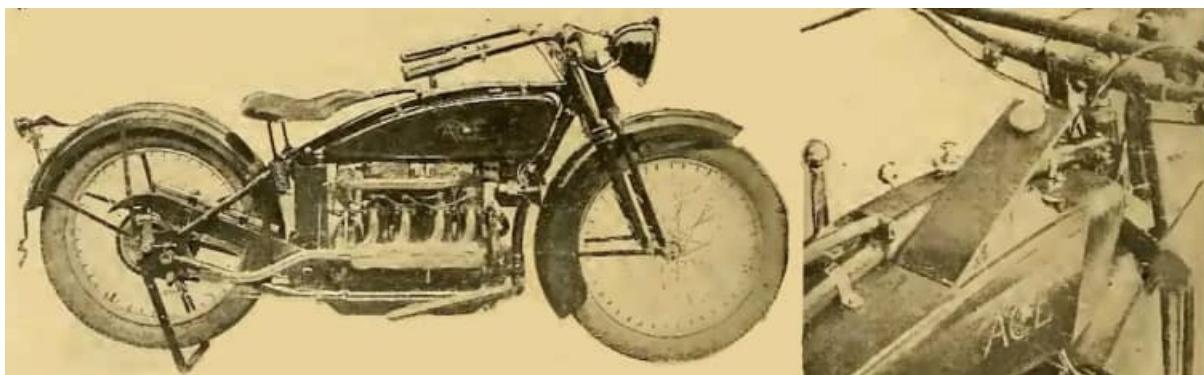
"THE TOTAL NUMBER OF motor cycles registered in France is 28,558. The Department of the Seine, which comprises Paris, has 7,169 machines...probably the smallest number is in Lozere, where there are only 21."

A BELATED ROADS WARNING, courtesy of Ixion: "The other week I advised west-bound motorcyclists to avoid the Moretonhampstead route across Dartmoor, because of the lumbering chars-a-bancs which blanket the narrow, tortuous lanes. I came back east next day, via Launceston, on a spring-frame ABC. I retract my advice. It is better to die swiftly, beneath the ruthless wheels of a char-a-banc than to skid and bump for a couple of hours. A few miles north of Bodmin, an unholy alliance between the Cornish rainfall and some timber lorries has trenched the roadway for miles. Where the lorries turn off, potholes commence, and continue as far as Crockernwell, so that only the last dozen miles into Exeter are tolerable. To judge by the convulsed faces of the rigid-framed enthusiasts whom I met, I was by no means the chief or only sufferer. Next time I go west it will be by aeroplane or the GWR."

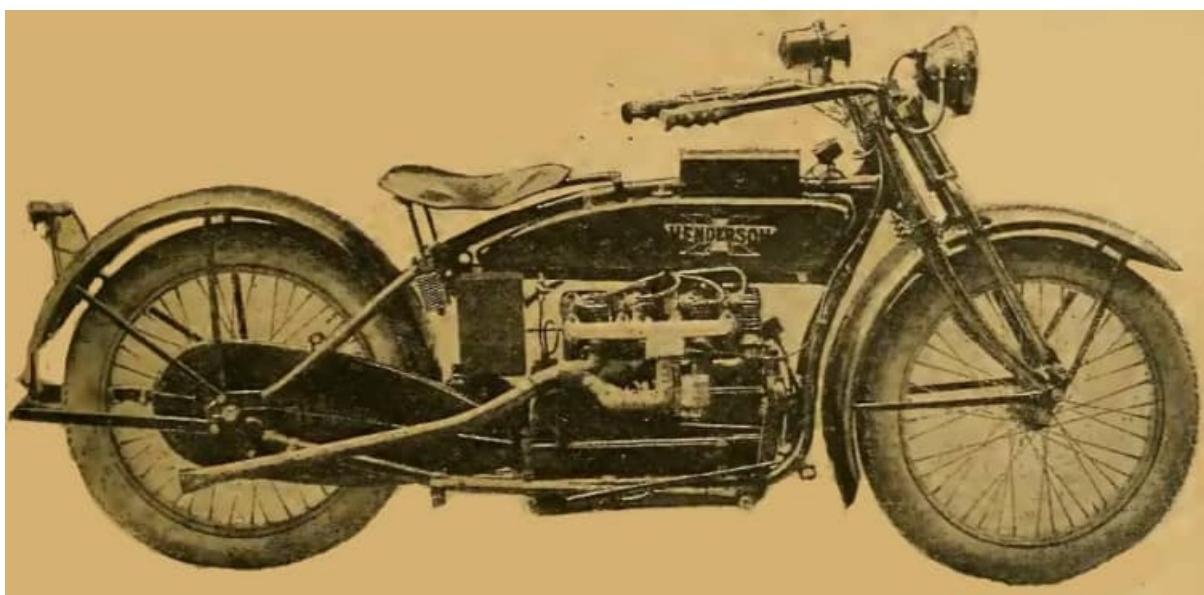


This pic was taken in 1920 and already looks out of date—the Cyclon Cyclonette was a 1904 Belgian design made under licence in Berlin. It survived until 1922.

"THE FOUR-CYLINDER ACE HAS HOW arrived in England...Since it was designed by Mr WG Henderson, it is not strange that it bears a very strong resemblance to the machine which carries his name; but when we study the interior mechanism, we find important innovations. The frame is of very strong construction, being made of heavy gauge tubing. It is of the duplex variety, and carries the engine in a horizontal cradle...the inlet valve rockers and springs are totally enclosed by means of special pressed steel housings, on the top of each of which are six holes for oil protected by a lid kept closed by means of a spring, consequently all dust and dirt are completely excluded...There is no separate oil tank. The crank case is designed to hold three quarts of lubricant. Driven off the timing gear at the forward end of the crank case is a gear pump, which draws oil from the sump at the bottom of the crank case and sprays it into troughs moulded in a tray above the normal level of the oil. These troughs are consequently kept full of oil, and the big ends, which are provided with dippers, dip into oil at each revolution, lubricating their bearings and filling the crank case with oil mist. The excess of oil flow back to the sump through a hole in the centre of the tray. The level of the oil is ascertained by a steel rod, dipping into the base of the sump, which, if withdrawn, shows the level at a glance. Air is introduced, into the crank case through a breather provided with suitable baffles to prevent the oil from being blown out...Automobile practice has been so far followed that the bottom of the aluminium crank case may be removed without disturbing the engine...The gear box contains three speeds and a bevel transmitting power from the crankshaft to the sprocket, which is connected to the rear wheel by means of a single chain...Usual American practice is followed as regards the clutch and change-speed lever, which are interlocking—that is to say, unless the clutch is withdrawn the gears cannot be changed...An interesting feature is the petrol tank, which holds four American gallons. The front forks are of substantial construction, and follow lines somewhat like those of the 1914 Henderson. lugs are provided for the attachment of a sidecar."



"As was to be expected, perhaps, the new Ace follows the lines of the earlier design of Mr WG Henderson. (Right) A tool box is carried in a recessed portion of the petrol tank."



Henderson, the first US four to reach British dealers, in 1919, had been "entirely redesigned" as a 1,344cc sidevalve with the exhaust manifold surrounded by a "hot air muff" over the inlet manifold. Like the Ace it sported car-style "forced lubrication". However the reverse gear promised for sidecar work had not materialised.

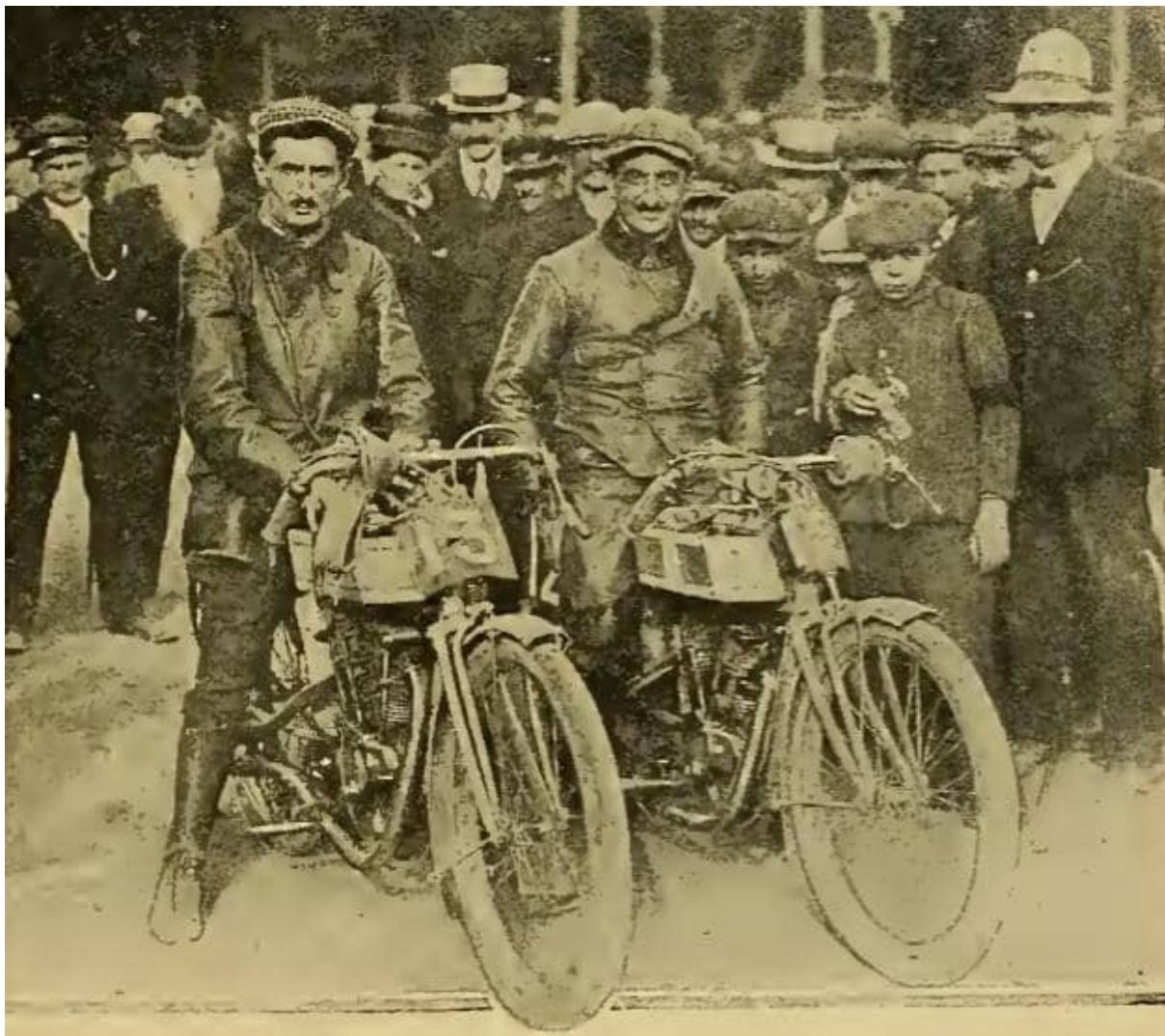
"THE GRAND PRIX OF THE Union Moto-cycliste de France, held at Le Mans on Saturday last, was won (in the 500cc class) by Jolly on an Alcyon, which covered the twenty-two laps (233 miles) in 5hr 15min 13sec. In the 350cc class the winner was Bartlett, on a Verus, who covered twenty laps (212 miles) in the same time. The winner in the 250cc class was Mourrier, on a Thomann two-stroke, which covered 16 laps (170 miles) in 4hr 4min 33sec. Cleck, on a Motosolo, took second place in 4hr 46min 12sec. No other machine finished the race within time allowance. The course, which lies to the south of Le Mans, is triangular, and has a total length of about 10 miles. Of the three classes, the 250cc machines were required to make 16 circuits (170 miles), the 350cc machines 20 circuits (212 miles), and the 500cc machines 22 circuits (234 miles), and the competitors were started in groups according to their classes, the smallest going away first at six o'clock, and other classes at intervals of one minute. In consequence, the start was a fine sight. Five minutes before his class was due to go Alexander, on one of new chain-driven Douglasses, discovered a big nail in his rear tyre, and was left behind when his group started. He got away with a delay of about three minutes, but, riding magnificently, he got the lead after two laps. Competition was very keen at the beginning of the

race, particularly between the Peugeot, Alcyon and Douglas teams; mechanical troubles, however, developed



H Bartlett rode a Verus to victory in the 350cc class.

early. Devaux on a 3½hp Peugeot, who had been in front on the first lap, broke his front fork and had a bad spill, although he was not injured. After four laps, Pean, another Peugeot rider, who had been in second place, had to retire with a broken change speed gear, leaving only Perrin of this team in the race. For a considerable time there was a very keen contest between Jolly (Alcyon) and Alexander (Douglas). The latter's machine was slightly the faster, and kept the lead except for a short time after stopping to fill up. The Alcyon which got ahead then did not hold its advantage long, for Alexander again rode into first place, and after 16 laps had a lead of about 20min. At this point, however, the second gear of the Douglas stripped, probably owing to the fact that these machines have no clutch. With this handicap, it was very difficult for Alexander to make hairpin turns, and after stalling on one corner he found it impossible to get away again unaided, and was ordered off the course after having been pushed. The machine had shown such remarkable speed and had been so well handled that this decision caused general regret. Kickham (Douglas) broke a valve early in the race, while Doisi, also on a Douglas, was held up at an early hour with stuck carburettor throttle, and later abandoned the race owing to a broken shock absorber. Of the three members of the ABC team, only Borgotti covered the entire distance, but he came in one minute too late to get official recognition for the performance. Yenne fell, and Naas was eliminated by a flying stone from a competitor's machine which broke his cylinder head and damaged a valve. Naas was also fined 100 francs for going round the course the wrong way. Vuillamy, on an Alcyon, abandoned the race at the replenishment pits, a statement being made that he was tired. The new vertical twin Bleriot machines, which appeared for the first time in a speed contest, met with ill luck. Paumier had to abandon very early with a



Jolly, pictured with his Alcyon team-mate, won the 500cc class by virtue of being the only rider to finish the race.

broken clutch, Berlie broke his valve gear, and Brunet failed to finish within the time limit. The machines, while on the same general lines as stock Bleriots, had special engines with two side-by-side cylinders having four overhead valves for each. By reason of the mechanical accidents to Peugeot, Alcyon, and ABC machines, the race resolved itself towards the end into a contest between Jolly (Alcyon) and the Motosacoche riders. These latter, however, had met with various small difficulties, one of them retiring at the depots, and two others failing to get home before the race was called off at 11.30am. In the 350cc class, the winner proved to be the Englishman, Bartlett, on a Verus machine. His companion, Copus, was put out with a broken gear box, while Lehmann, the only Alcyon rider in this class, had a nasty fall, due to a broken mudguard catching in the front wheel. Louis on the 250cc Alcyon broke his rear mudguard stays, and fastened the wreckage on to the carrier; this being considered an infringement of the rules, he was disqualified. This is the first time in the history of French motor cycle racing that only one machine out of 19 finished in the 500cc class. Such a result, however, may be attributed to the fact that the roads, while being very fast, had very rough surfaces, which were extremely destructive to machines."



"The overhead valve engine of the winning Alcyon. (Right) An English competitor at speed. Alexander on his Douglas."

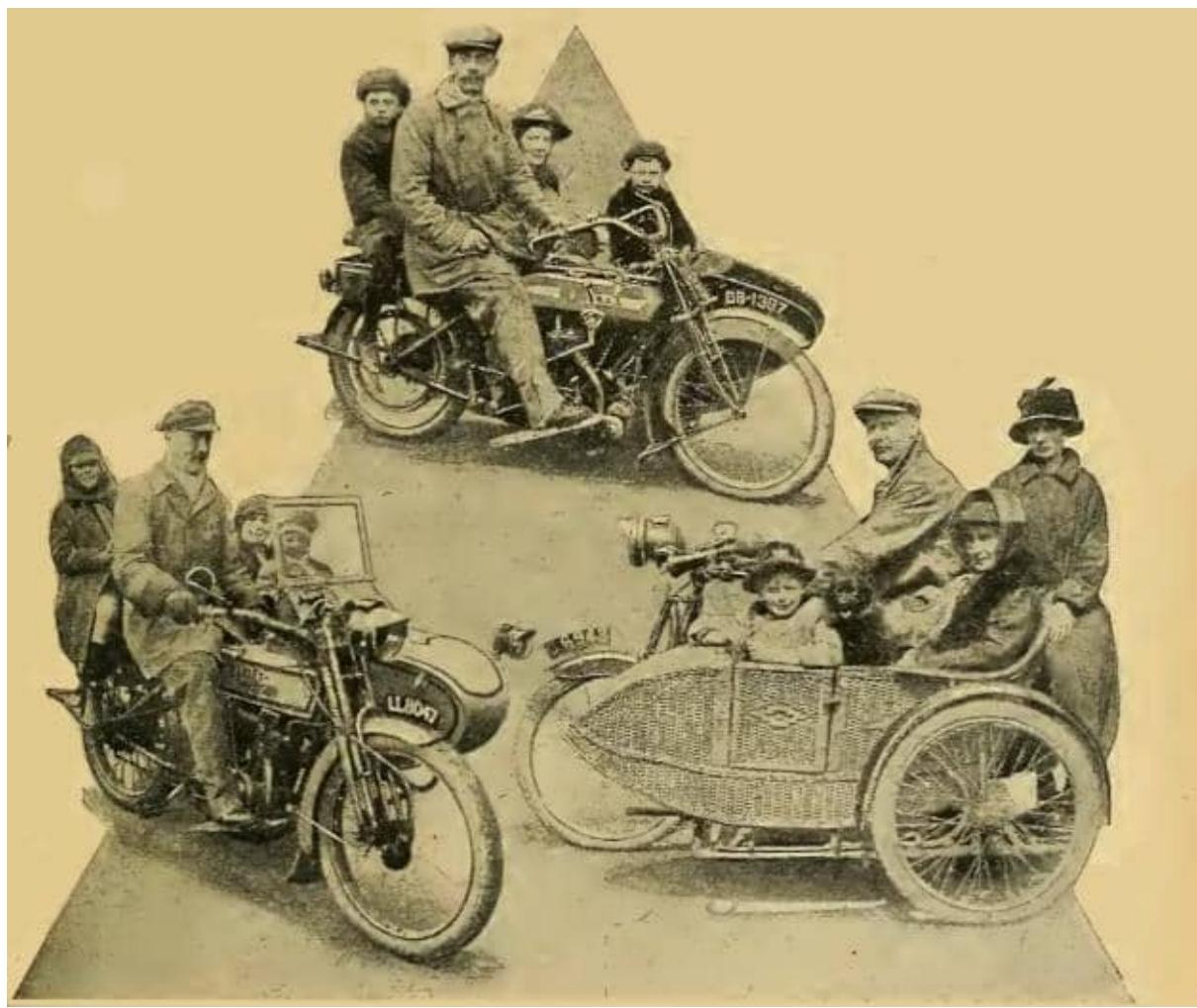
"ONCE AGAIN THE PETROL COMPANIES have seen fit to make a considerable increase in the price of petrol. Justification for the rise is, of course, forthcoming from the vendors, but, justification or no justification, it is the motorist who is hit, and he is beginning to ask when this state of affairs will cease. The answer is a hard one, and is complicated by the fact that the price of benzole has been raised by a similar amount. It is easy to say that the solution of the whole question lies in the production of a home-produced substitute at a competitive price, but so far such substitutes have, failed to materialise in sufficient quantities to be of any practical value. There are immense shale beds in this country capable of supplying enormous quantities of motor spirit, and herein lies a cheering hope, though the necessary plant for the production of a suitable fuel has yet to be installed and developed to a workable state. Benzole can be produced in sufficient quantities and at a reasonable price only by the aid of the Government, and it is to be hoped that, profiting by war experience, the Government will refuse to allow the country's road transport to be controlled by foreign influence."

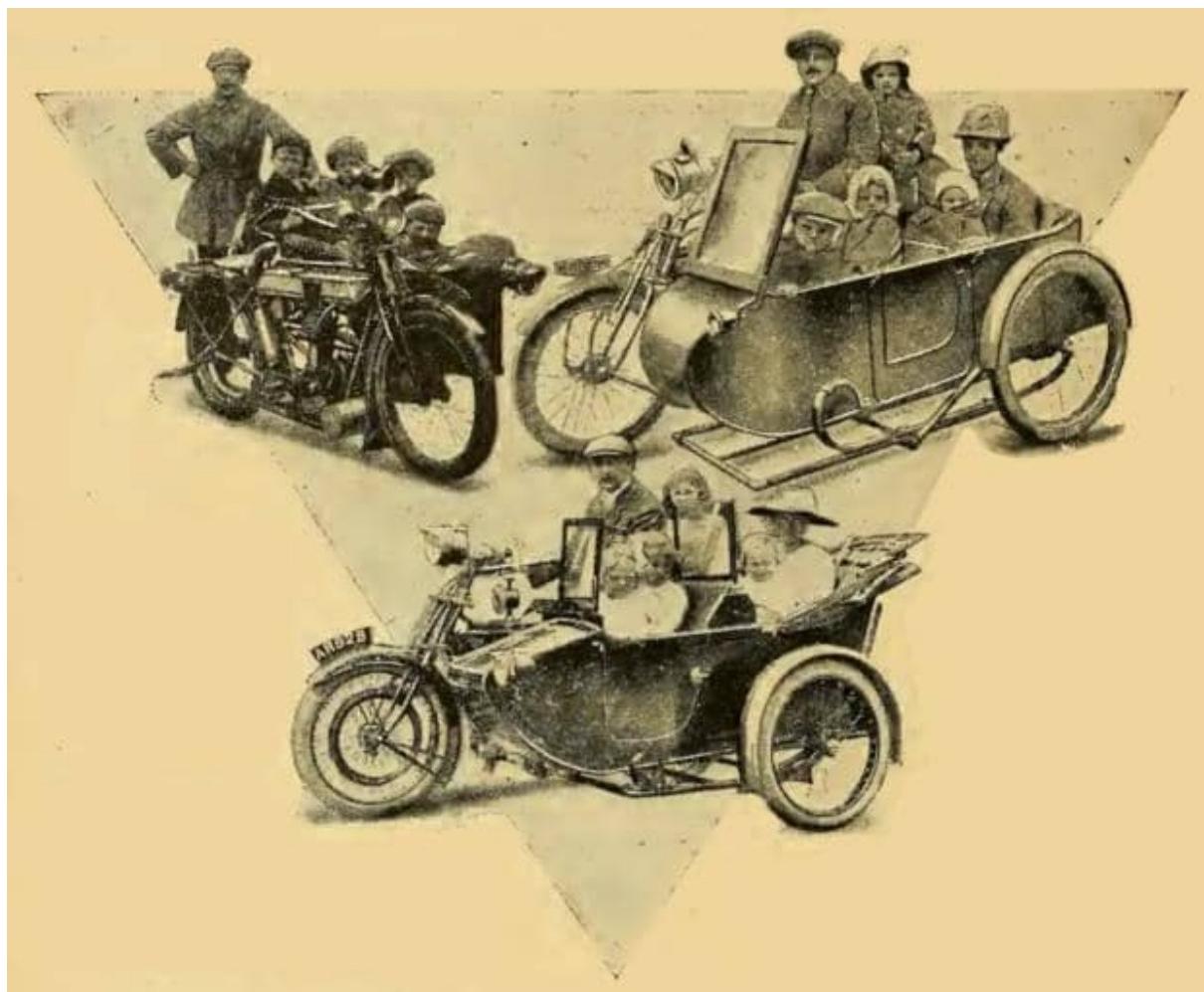
For extensive coverage of the ACU Six Days Trial, the Scottish Six Days Trial and the third Anglo-Dutch trial check out the 1920 Features section.



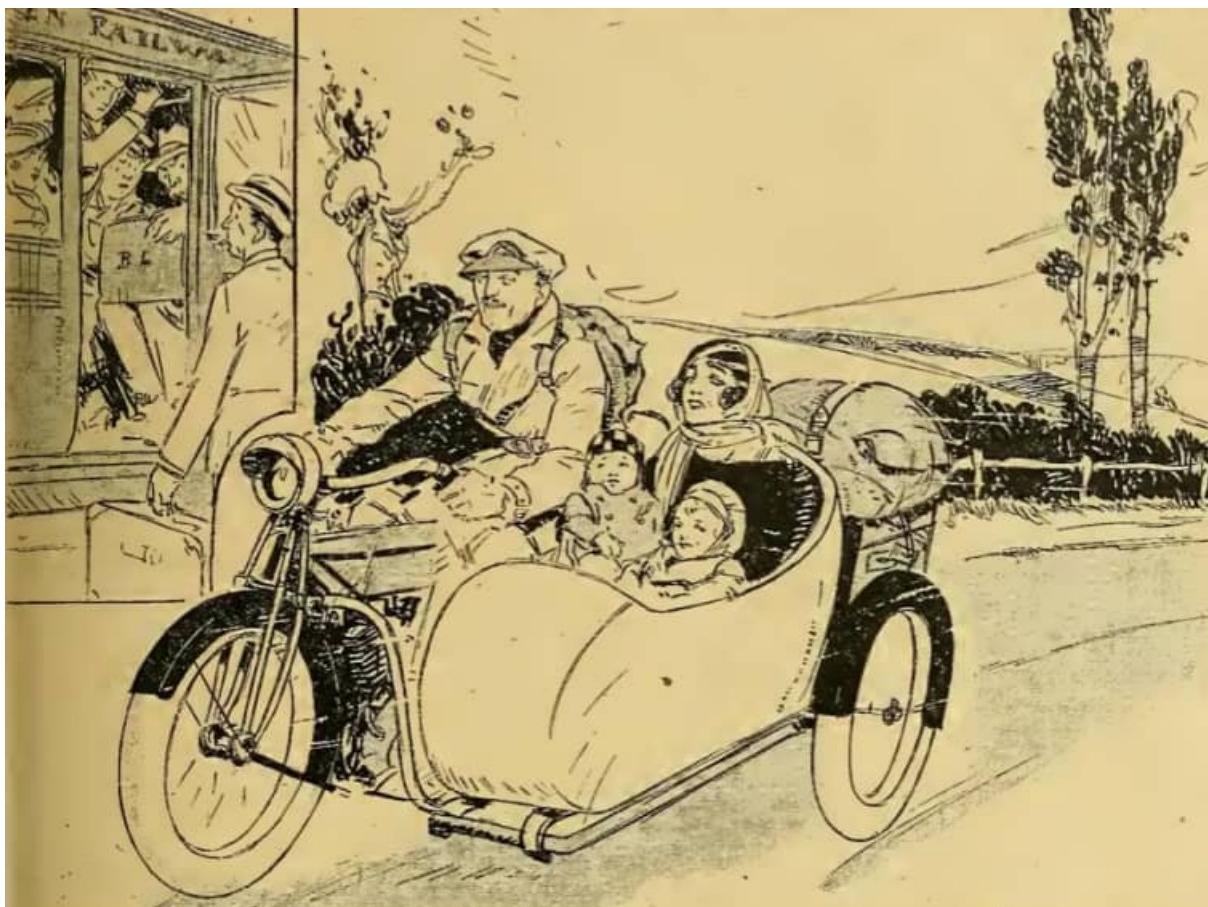
"IT IS NOT SO MANY YEARS since the first sidecar appeared on the road. The pioneers who introduced them have but few more grey hairs than when they defied the criticisms of theoretical engineers and produced the prototypes of what is to-day the most popular vehicle on the road. Like all inventors and designers, they were confident of the success of their productions; but probably, no one realised the great potential popularity of this type of vehicle. The meticulous engineer in viewing them, in learning of their remarkable efficiency, can be

likened to the farmer who, on seeing the giraffe at the Zoo, remarked that there was no such animal. Here we have a vehicle which violates many of the laws of mechanics, and yet grows in popularity and utility as the years go by. The high brows of the mechanical world continue to tell us of a hundred and one reasons why sidecars do not follow sound mechanics. According to them, no sidecar should support much more than its own weight yet a hundred odd thousand motor cyclists owning sidecar outfits can answer 'But it does'. The writer last year covered over 3,000 miles with a single-cylinder sidecar and family (and an Easting windscreens to add to their comfort) at an average consumption of 83mpg—and 83mpg is little less than the average solo rider obtains on 3,000 miles of running. The accommodation of a sidecar outfit seems to be limited only by the ingenuity of the owner. Fathers of six are not dismayed by the problem...Offspring in bunches of two and three are comparatively easy to accommodate without even resorting to a pillion seat to take the eldest. Four youngsters are not an uncommon number, and even larger numbers are occasionally to be seen packed on to a motor cycle and sidecar outfit. Overloaded? Of course the machines are overloaded. We do not recommend such practice unless frames and sidecar chassis are specially strengthened—but—there it is! Family men will do it, and because motor cycles and sidecars are so well made that 'nothing happens', they will continue to do it and who shall blame them, since they give so much pleasure to so many human beings at so little cost. It is not only the pleasure side of sidecarring that should be considered...The wife who can forget her household worries at the weekend, and enjoy a few hours in the open-air, is better fitted to face the week that follows. The husband spends his spare time in a hobby which improves his mind, where such close indoor pastimes as billiards and cards might tempt him. The children receive assistance in their school studies as well as enlarging their outlook. Again, there must be hundreds of fathers who could not afford to take a family to the seaside, and give them all such a good time, were it not for the motor cycle and sidecar. The sidecar now forms part of family life in this country—it gives all in a household a common interest, and knits ordinary parental affection into companionship. It will take a great deal to shake the sidecar from its present high position as the most popular vehicle on the road."—**Vedette.**



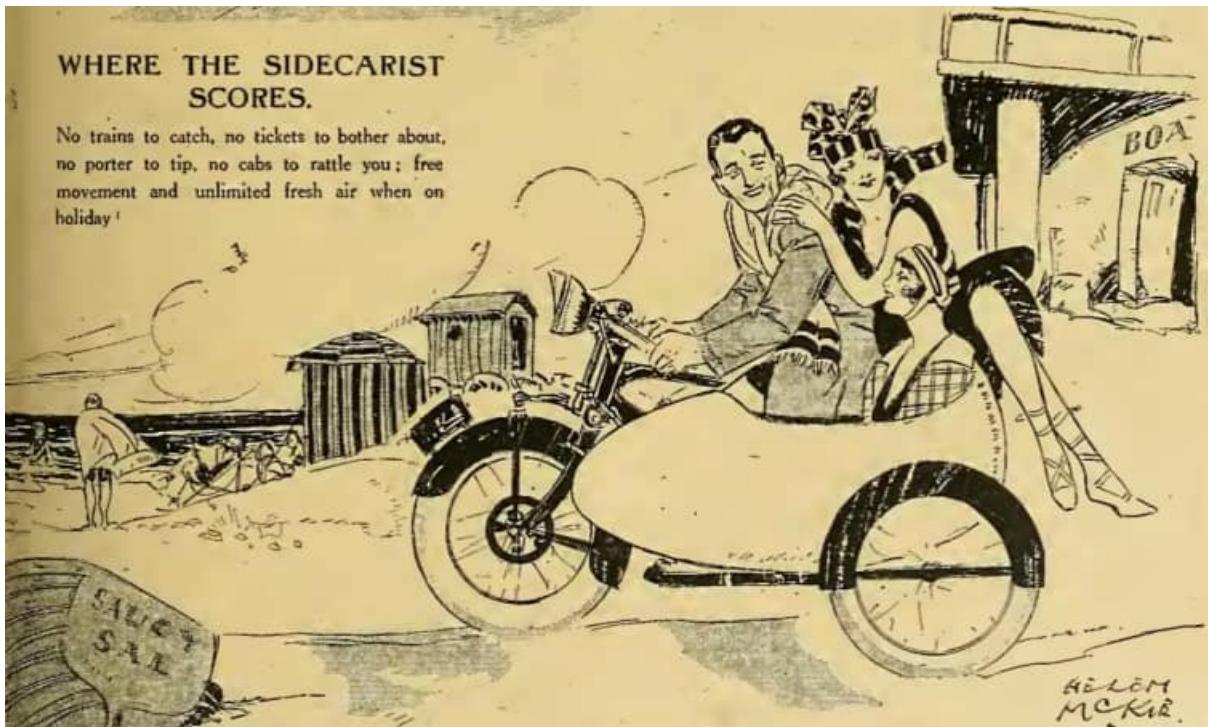


"These are not specially posed pictures, but sidecars under ordinary running conditions."



WHERE THE SIDECARIST SCORES.

No trains to catch, no tickets to bother about, no porter to tip, no cabs to rattle you; free movement and unlimited fresh air when on holiday!



"THERE IS SOMETHING to be said for the stand placed beneath the countershaft or somewhere thereabouts—a position which seems likely to become more or less popular, though it is not particularly novel. Such a stand was to be seen on the Midget Bicar, a motor cycle made by Brown, of Reading, having a pressed steel frame and several other points to recommend it.

Such a stand makes it very easy to raise the front wheel when it is desired to test the bearings of the head for purposes of adjustment, or to raise the wheel for tyre repairs. The latter can, of course, be done by means of the usual front wheel stand, but the former cannot, as the use of tile stand prevents the free swinging of the wheel from side to side. The central stand should be spring-operated, and it is then very unobtrusive in appearance, no matter whether up or down."

"SIR,—AS PETROL CONSUMPTION CHALLENGES appear to be in the air, I should like to ask if anyone can outdo me on one pint or gallon of petrol on any make of machine of the same power. My machine is an AJS 2½hp, about 1914, and after draining the tank I measured in one pint of petrol, and on this I ran 24 miles. This I can do again.

S Cook.

"SIR,—FOR SOME TIME LATELY I have been running my 1920 4hp Triumph on a mixture of three parts benzole to one part paraffin. The experiment has been a wonderful success. I get more power, slower running, better acceleration, and about the same, or slightly better, mpg. It runs equally well on a mixture of half and half. A friend of mine has run his 4hp 1914 Triumph on it also, as has another friend on his 2½hp MAG-OK."

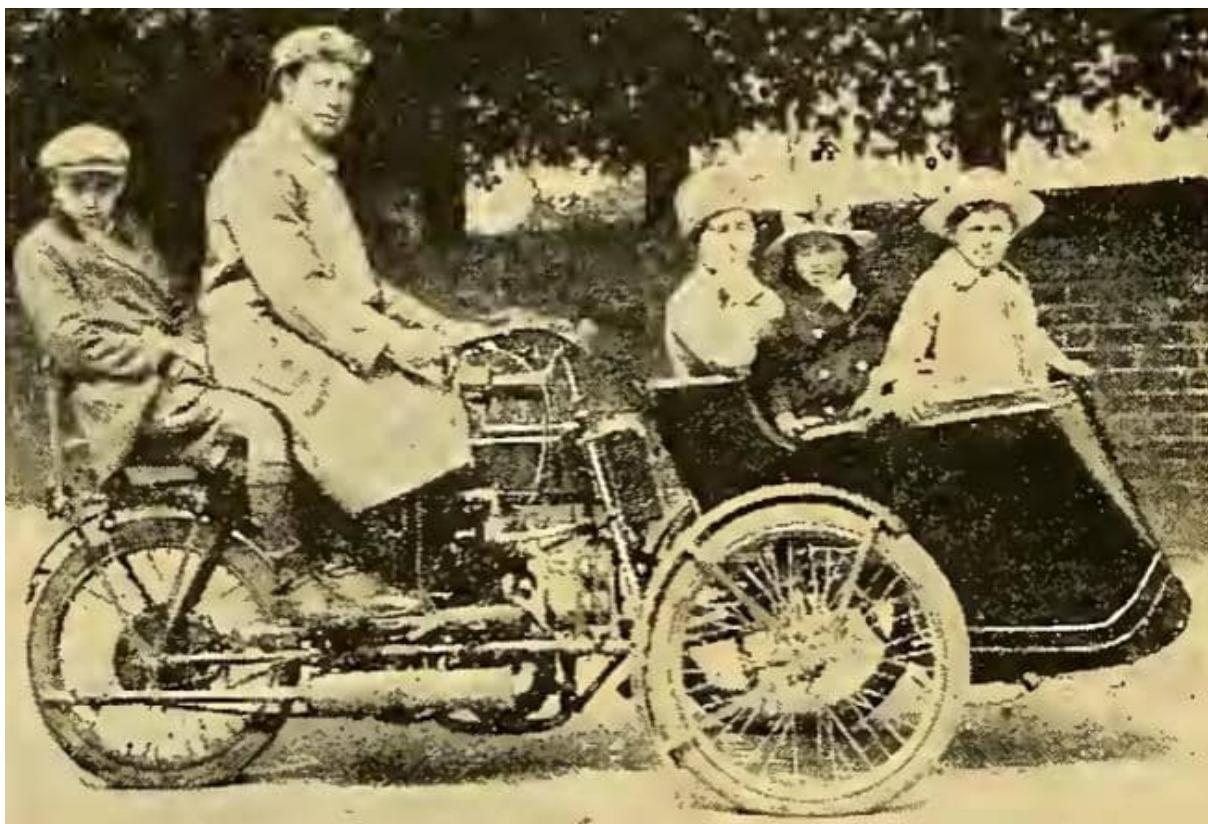
CC King.

"SIR,—I FEEL SURE MANY of your readers are unable to appreciate the advantages to be obtained from many of the good things advertised. My present 3½hp machine until recently consumed one gallon of petrol per 100 miles. I determined to improve on this by the following means, and herewith give results: I first fitted a 'Blank' carburetter, guaranteed to use 20% less petrol than any other. The result was 100 miles per 0.8 gallon. I then fitted the 'Blank' inlet valve stem lubricator and air leak preventer, guaranteed to give an extra 25mpg. Result, 100 miles per 0.64 gallon. I next used 'Dots' tor mixing with my petrol, giving 25% per gas. Result, 100 miles per 0.51 gallon. Afterwards I fitted the 'Blank' economy valve to inlet pipe, and mixed 'Boildag' with my lubricating oil. Result 100 miles per 0.45 gallon. On changing over from petrol to benzole I got a still further improvement—100 miles to 0.4 gallon. By fitting a streamline tank, disc wheels, aeroplane foot-boards, and mudguards this was further reduced to 100 miles per 0.35 gallon. By fitting a Brooks saddle and wearing Beacon oilskins I got it down to 100 miles per 0.25 gallon. I also understand that by using the 'Blank' three-speed gear I can save a further 0.25 gallons per 100 miles, after which by fitting 'Blank's' petrol magneto and plug I expect to reach the producing stage, and hope to produce about one quarter of a gallon per 100 miles, from the sale of which I should be able to cover cost of tyres and lubricating oil, thereby practically cutting out all working costs. Also, with the prospect of prices continuing to soar at their present rate, the factor for depreciation may also be eliminated—in fact, I am anticipating, if I am able to put in sufficient mileage, making a small, but steady, income out of it.

'Moonshine', King's Lynn."

"SIR,—KNOWING YOUR READINESS to publish anything to interest to your readers, perhaps the accompanying photo-graph comes within that scope. The picture represents a tricar made in 1905 and still going strong. It was made by the Wolf Co, is propelled by a 4½hp AJS water-cooled engine, fitted with their gear box and clutch, and is chain-driven. Carrying the load shown it can average 15mph. The rear tyre, which is an Avon, was fitted in 1912, and has had one retread. We ran 200 miles recently, climbing a hill 1 in 22 one mile long with load shown in the photograph.

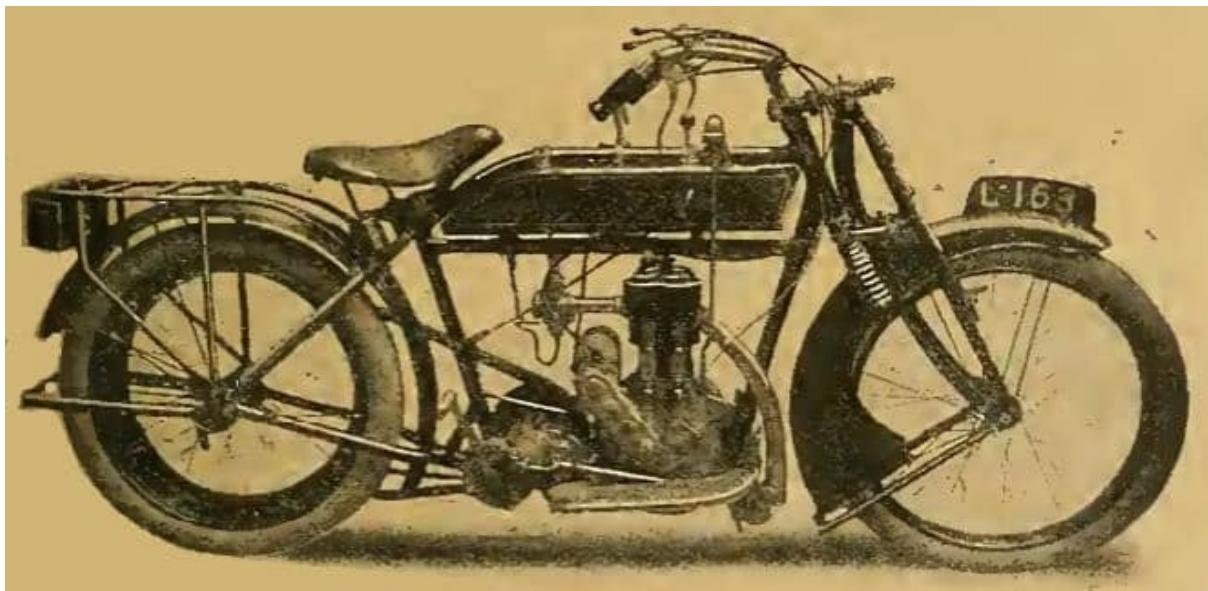
JW Fosker.



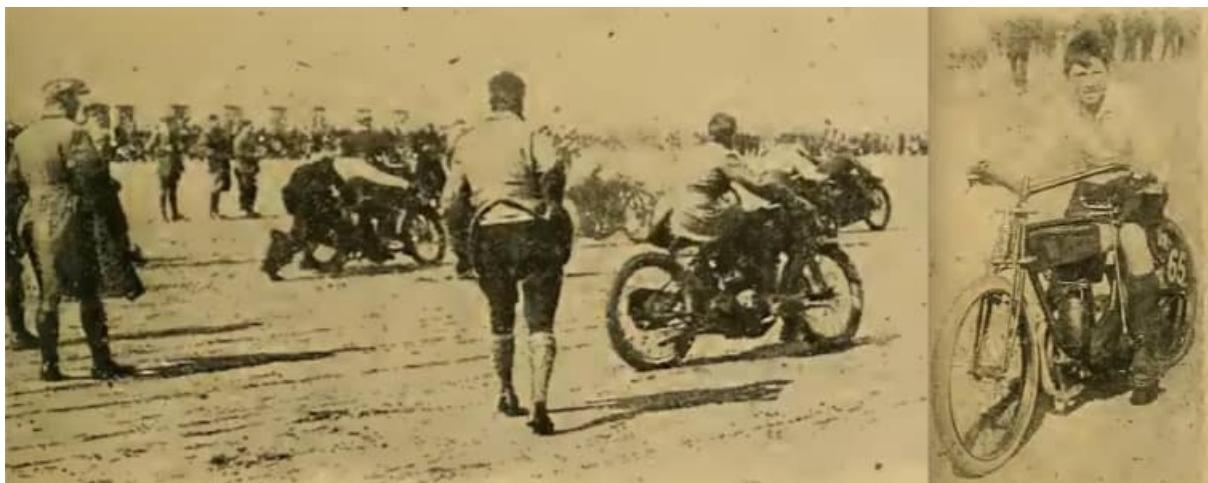
"Sixteen years old and still going strong."

HAVING MADE SOME INTERESTING points about two-stroke and four-stroke efficiency a correspondent noted: "Contrary to popular opinion, therefore, the two-stroke engine does not suffer from ineffective piston travel any more than the four-stroke does. There are, however, other obstacles to efficiency, and difficulties to be overcome which do not exist in the four-stroke, and one cannot but appreciate the manner these have been tackled, and largely eliminated by some two-stroke makers. As an instance, I was, picnicking on Bwlch-y-Groes some days ago when three little Velocettes came humming up the hill (which was in very bad condition), and without a pause or falter went clean over the top. This was repeated three times by the trio, and the last ascent was faster than the first. It was quite inspiring. When I get too old for my 'big 'bus' I must seriously consider getting a Velocette."

James Lansdowne Norton.



The Netherlands imported bikes from Belgium, France and Germany as well as the UK and the US, but the Dutch made their own bikes too, not least the Eysink, whose three one-lungers "more closely follow the lines of British machines than those of Holland's nearer neighbours". The 427cc 4hp model (pictured) was sandwiched by a 365cc 3hp and a 539cc 5hp, all with two speed boxes and British Amas carbs.



"The start of the heavy weight class in the Scottish Speed Championships, held at St Andrews. (Right) The youngest competitor, RJ Mackie (2½hp Royal Enfield). He put up a plucky ride."

"A SCRAMBLE ROUND YORKSHIRE—Impressions of The Scott Trial, by a Competitor. Entries, 132; Starters, 86; Finishers, 60. 'This is not a race but a tragedy.' Such is the description of the event on the official programme. Fortunately, the description was applied in the spirit of cheerful good fellowship which pervades everything pertaining to the Scott trial. The organisers are frankly out to provide a day's sport, and to prove what can be done by man and motor cycle. One might say that the test is admirable as an Overseas trial, but, though equally villainous or worse tracks undoubtedly exist in other parts of the world, it is certain that they are not used by motor cyclists, except in cases of very special need. These remarks do not, of course, apply to the whole route, parts of which are rideable, and parts even are excellent main road, but such sections as that near Grimwith Reservoir and the moor tracks near the cupola works (disused lead mines) must be experienced even to be imagined. Shortly before ten o'clock competitors gathered in Burnsall in a steady wetting mist, and all the cheery optimism of the organiser's was

needed to save the spirits of the competitors from becoming unduly damped. The depth of the watersplashes grew till one began to think of lifebelts. The surface of Darnbrook was so slippery as to be unclimbable. Park Rash and the Scar raised our deepest fears,



"HE Ellis (BSA) between Hebden and Grassington The 'road' at this point is narrow and rough."

and it was pointed out that only two riders had got across the Nid with engines running in the previous year. Such is the atmosphere at the start of most big trials, and everyone knows that the Scott trial is the stiffest of the lot. A glance round the competing machines revealed that Scotts and Triumphs were easily in the majority, though P&Ms, Wilkins, and Kingsburys each had three or four representatives. Manufacturers, with the exception of those from Yorkshire, were conspicuously absent, for a trial of this description brings out the sporting rider rather than the stock trade teams. At 10 sharp away went Donald Moore on his Scott, followed at minute intervals by the next men. Waddington's Triumph was barely out of sight before his belt fastener gave trouble and caused a stop. Soon it was our turn to get away, and in a few moments the start, from our point of view, lost all interest, and only the road ahead mattered. The good roads soon deteriorated, and a long rough descent had its climax, in Dob Park splash. A pack bridge—on which spectators crowded—spans the stream, and the splash is entered and left by steep paved banks. Added to this there are boulders in the bed. A competitor was firmly embedded in the stream when we arrived, only to keep him company, but Waddington came through safely, though his belt caused trouble on the subsequent hill. Shortly after this some of the early numbers went astray, as there were not sufficient wheel tracks to act as a guide, and some of the arrows had been destroyed during the night by wind and rain. The route-marking as a whole was excellent, and it was purely bad luck that the effects of the elements caused a certain amount of trouble. Grease was abundant and horrid, and hills, well, one lost count of them, though the descents were perhaps the most trying, and the moorland ruts and wet grass caused many spills. Lashed by the strong wind there were white capped waves on Grimwith reservoir, but this same wind blew away the rain clouds and helped to dry the course. After skirting the end of the reservoir, all signs of a track disappeared, and the course was indicated by stakes driven into the ground at intervals. At first the route was merely grass, but it became rougher and boggier until it appeared that neither man nor machine could stand another jolt; added to this, a

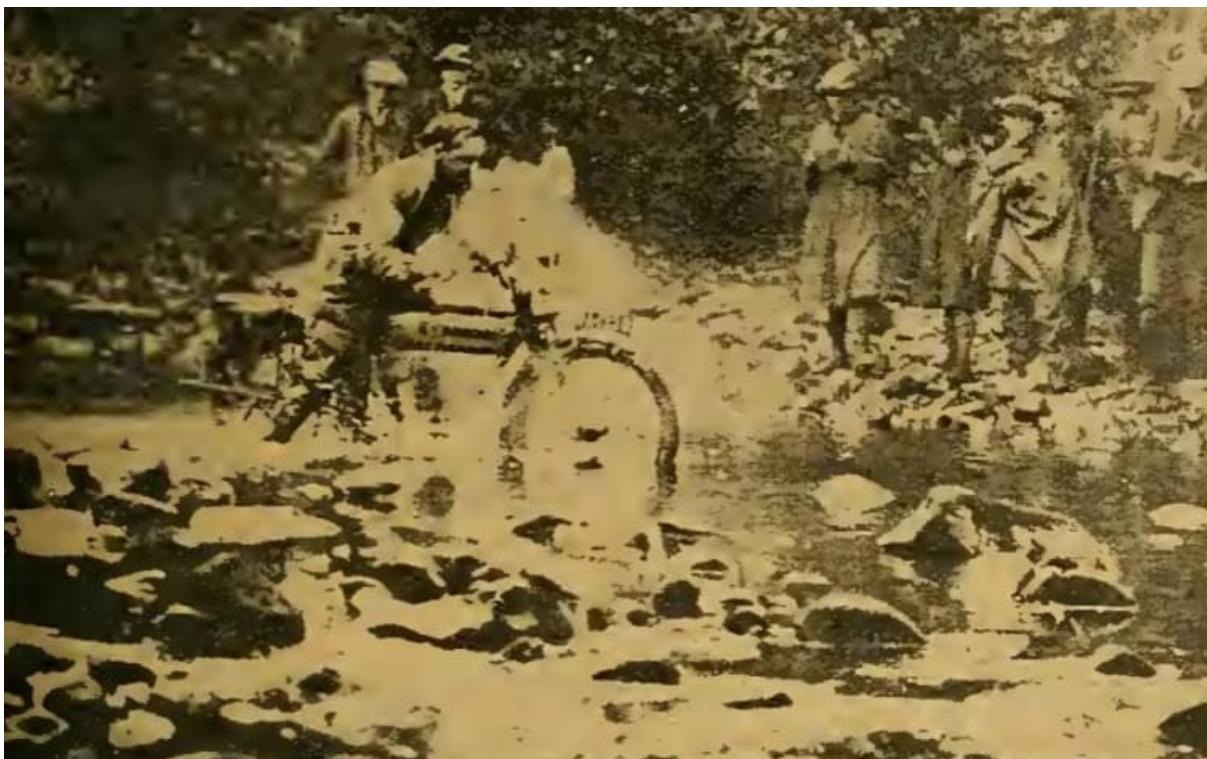
very slight deviation from the staked course inevitably led to a bogged machine. The stretch culminated in two observed mud splashes of such a depth that machines dropped on



"B Hill (Scott) passing through the roads of the ruined lead works, which constituted part of the route."

to their crank cases and balanced precariously on the edge until shoved off into the slimy depths. Next came more grass and a welcome descent to Burnsall for lunch and an hour's rest. By this time the sun was shining brightly, and competitors arrived hot and weary after much hard exercise amongst the rough. CP Wood's time for the morning section was spoken of with bated breath; but not a few machines arrived with bent footrests, burst silencers, and other minor defects. Hebden Ghyll! How is it to be described? Picture to yourselves a river bed partly filled up with stones, heather roots, and an assortment of rubble—all this on a steady upward grade with intervening bits of the genuine river, water and all. It was at such a spot that a cinematograph operator chose to do his worst, and he at least must have had much amusement. At one place one climbed a slag heap sideways! Further on the track entirely disappeared, amidst the ruins of some old lead mines, and stakes once more showed the way. Hills followed. Grass hills, stony hills, long hills, steep hills, all sorts of hills, plus many gates and much three-rut track. Park Rash was almost a relief. The hill was in good condition, and one wondered how it ever came to be a bonus hill in the ACU Six Days Trials. Darnbrook belied the prognostications of the pessimistic, and proved an easy climb, and the crossing of the Nid was nothing like so terrifying as its approach down Deadman's Hill. For sheer discomfort this was perhaps the worst bit of the course, a really steep descent and crossed by innumerable gulleys, so deep that if taken slowly the wheels 'chocked' and stopped the machine. After the Nid comes the Scar, a hill of terrifying aspect and rough, rutty surface. It includes one hairpin which is the genuine article, and brings one back on one's tracks on a stiff gradient. This hairpin, by the by, is invisible until the last moment, being hidden by a bank. There followed a stretch of good, but twisty road, over which we had been warned that the police were active; then a selection of grease, a watersplash, and Middletongue, the last observed hill. Grease and ruts, followed by loose stones, formed the surface of this final test, and we can vouch for the fact that one

competitor at least tested the solidity of the stone wall on the left of the road and found it firm. A grand road to the finish and a strong head wind completed the most strenuous trial ever held, and a jolly party sat down to tea and discussion of the day's events. As reports from the observed spots came in the energetic officials worked out results, and to relieve the tedium of the wait, CP Wood, WL Guy, and one or two others, afforded much amusement to the crowds by crossing and re-crossing the Wharfe below Burnsall Bridge. So quickly were results worked out that the main awards, were announced at Burnsall before the party broke up, and Maj Watling made a popular speech alluding to the excellent organisation and the sporting, spirit of the competitors, also to the fact that over £35



"E Sykes (Triumph) in Dob Park watersplash. Observe the boulders."

had been cleared for St Dunstan's Hostel by the sale of programmes. This sum was considerably augmented later on by the sale of other items (including a policeman). In the evening the Scott Co entertained many of the riders at a dinner and sing-song at the Middleton Hotel, Ilkley: a few speeches, a few stories, and a few songs. So ended a happy, sporting, and well-organised event. All sporting riders will thank the Scott Company for throwing open to them a trial which was originally organised for Scott employees only. Competitors were supposed to average 20mph over the course, and, marvellous to relate, five men accomplished this feat. Fifty marks are awarded for speed, and one mark deducted for each minute in excess of schedule time. Needless to say, in many cases the whole fifty marks disappeared. A paucity of protests and grumbles is a welcome feature of such sporting events as the Scott trial. To 'finish' is the one idea of most competitors, and, if this is achieved, the resulting glow of satisfaction is sufficient to remove all idea of complaint. GW Wilkins's win in the 350 class is a fitting prelude for his 'round the coast' ride. Any 350cc machine which can finish in the Scott trial deserves much praise. **Awards.** Scott Trophy (for best amateur team): Sheffield and Hallamshire, FC Waites (4hp Triumph), EH Wheatley (4hp Triumph), and JO Vessey (4hp Triumph).

Myers Trophy (for best trade team): Scott Team No1: CP Wood (3½hp Scott), WL Guy (3½hp

Scott), and H Langman (3½hp Scott). Best team trade and amateur mixed: Harrogate, A Hill (4hp Triumph), WE Grange (4hp Triumph), and G Hill (3½hp Scott). Vinter Cup (best amateur performance): W Moore (3½hp Scott). Scott Staff Cup (best trade performance): CP Wood (3½hp Scott). Melano Cup (best performance under 350cc): GW Wilkin (2½hp Wilkin). Consolation Prize: CJ Nicholls (4hp Triumph).



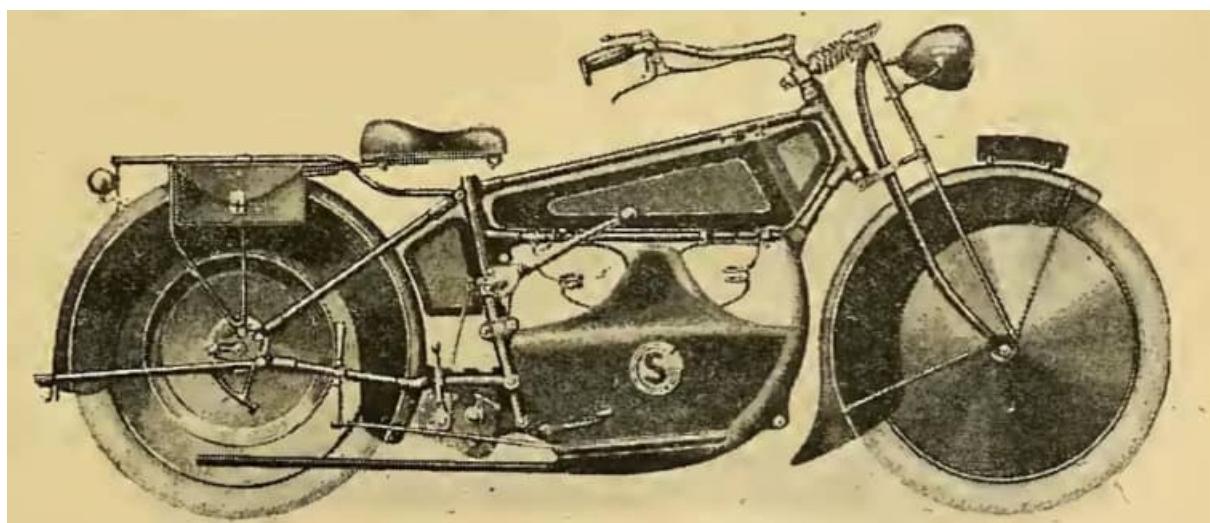
"THE SCAR, a hill that was included in the Scott Trial. The photograph conveys a good idea of the scenery, which was little appreciated by the majority of competitors. Most of the enthusiasts were too fully employed negotiating the tortuous course to admire the many line panoramas. Observe the acute hairpin bend on the right and the ribbon of road in the valley leading up to the hill."

"JUST AS ONE SWALLOW does not make a summer so one frost does not make a winter, though there are pessimists abroad who may give it that interpretation. The voluntary winding up of the Sopwith Aviation Co, following upon the liquidation of the Clyno Engineering Co, is regarded ominously by certain sections of the Daily Press who take it as an indication that the motor trade is stagnant. Such a statement is apt to be misleading, since enquiries addressed to most of the well-known manufacturers show that order books are almost as full as ever. Some amount of stagnation there may be, but trade is not lacking...Many manufacturers also have been hedged about with serious difficulties since the Armistice. Some of them laid out optimistic programmes for production in large quantities, and installed expensive plant for the purpose, but were subsequently handicapped by rising prices of materials and labour troubles. It has been difficult, also, to obtain the necessary material for the projected programmes, for labour has not exhibited energy since the war, and many other minor causes have contributed to rendering the lot of the manufacturer difficult. The result is in some cases that available capital has been expended before output has been brought to a level that will enable deliveries to be made in numbers sufficient to relieve the situation. This position, happily, is not general."

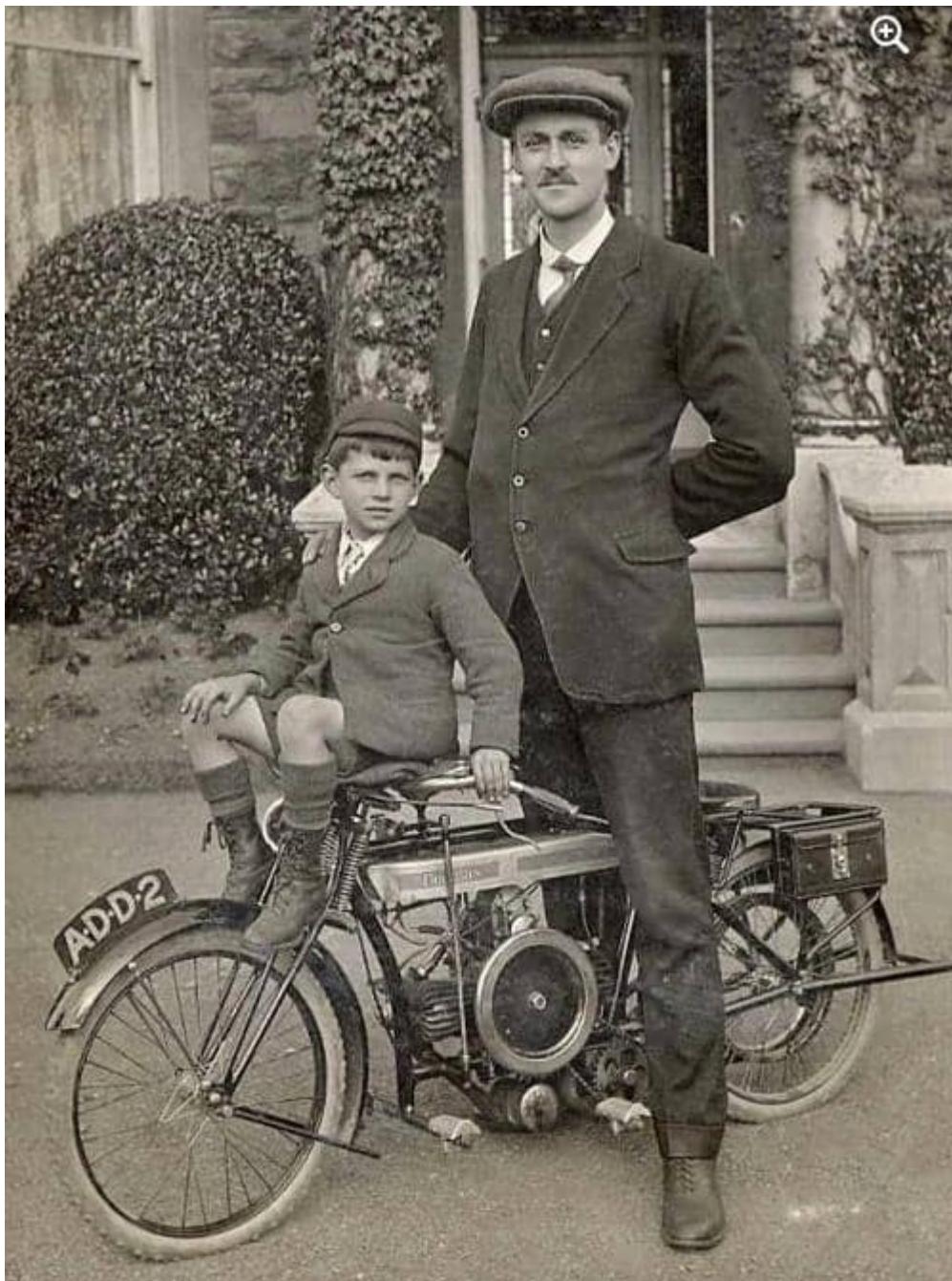


"These striking photographs, taken in Toronto, convey a good idea of the public interest in motor cycle racing in Canada...That the actual racing can be seen in progress all round these small dirt tracks no doubt accounts in some degree for the amount of public support shown. Sensational finishes on such tracks are certainly more frequent than they are on the great course at Brooklands."

"A SERIOUS ATTEMPT TO PRODUCE a machine on which the rider is protected from mud and oil from the engine has been made by the Gordon Simplex Engineering Co, of Aylesbury and Bournemouth. To attain this end the engine is enclosed in a cowl which gives to the mount a somewhat heterodox appearance, but without any tendency to freakishness. In addition to the engine cowl, large mudguards, leg guards and disc wheels are fitted which combined make the machine of the 'hosable' type so long the ideal of many riders. The engine is a Coventry Victor flat twin, which is fitted with a Lamplugh mechanical oil pump driven directly from, the camshaft, by means of which the engine, gear box and entire transmission are automatically lubricated...Every effort appears to have been made to give many of those luxuries that have long been desired."



"The Gordon-Simplex, designed to protect the rider from mud and oil from the engine."

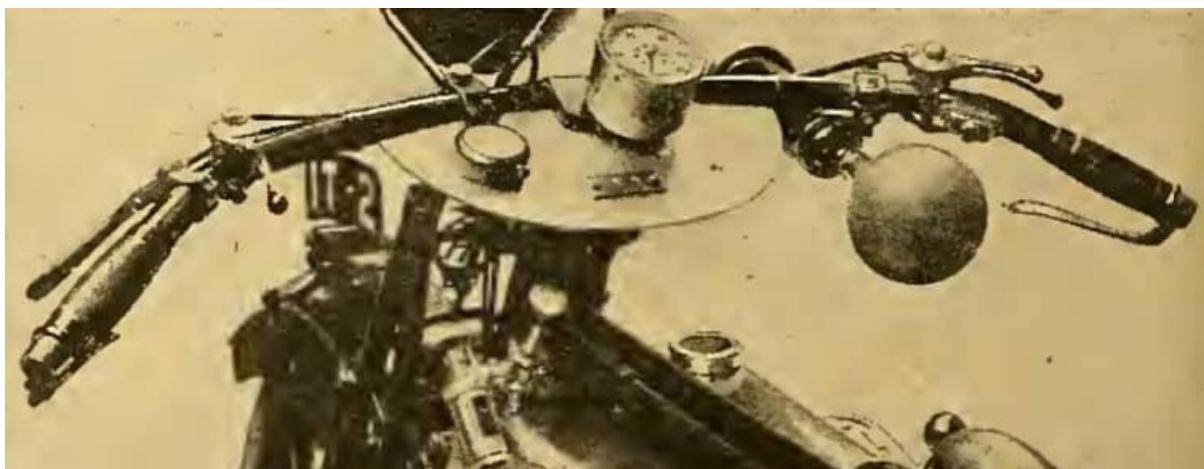


Proud dad, and the Douglas minibike he built for his son. *The Graphic* heralded it as “the smallest motor cycle in England”.

“TO ENCOURAGE THE USE of cheaper fuel the RAC (the parent body of the ACU) has under consideration a trial of vaporisers and other apparatus by which internal combustion engines may be operated with alcohol and heavy oils, other than petroleum spirit or benzole.”

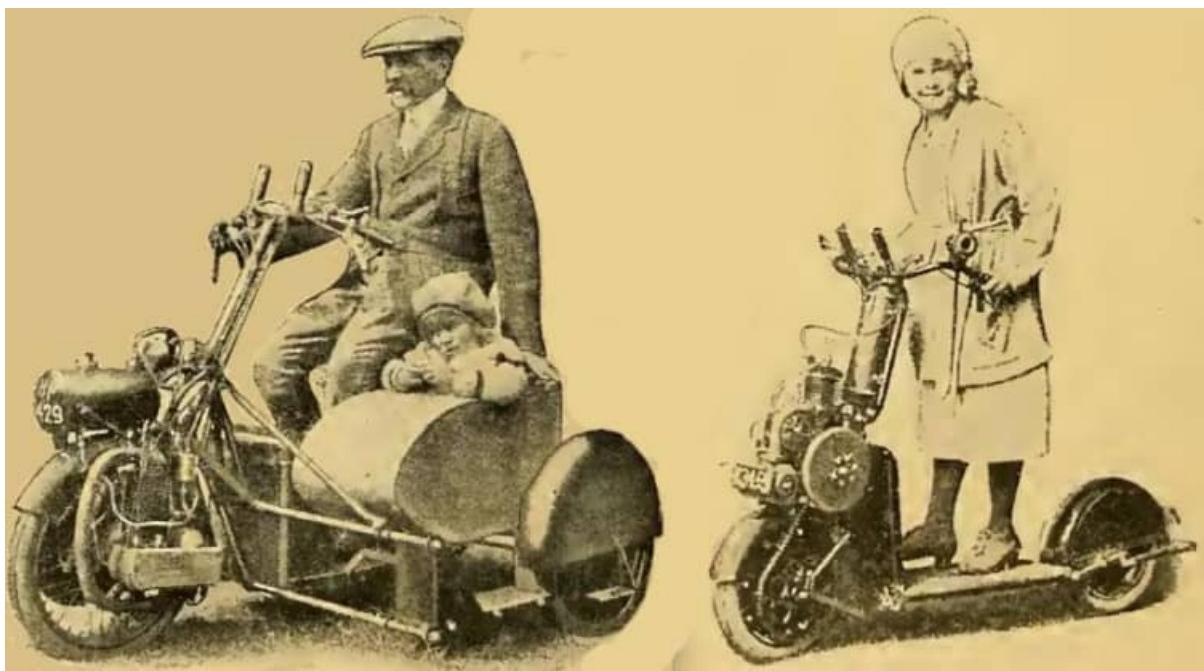
“THE PRICE OF AN ARTICLE is what it will fetch.’ This being the sentiment in the- minds of those who control the life blood of the motor industry, it is obviously a duty to help forward the production of an alternative fuel. Now there are already three alternatives which only require development in order to lower the price of fuel...Benzole we most of us know and appreciate, but owing to the claims of the dye industry and the lack of Government support, its price is roughly that of petrol, and it has become very scarce. Shale oil again is an excellent substitute,

and enormous shale deposits exist in this country, though they require development. Alcohol can be produced at home and in so many parts of the world that its supply could be unlimited...the price of motor fuel is not a matter affecting only the private owner, it is a national question which has a considerable bearing on the price of all road-borne freight, both human and commercial, and added to this fuel is of vital importance to the country in the event of war. It is, therefore, the Government's business to secure an adequate supply of fuel at a reasonable price...Every motor cyclist, and indeed every patriotic citizen, should use his utmost influence to secure this end."



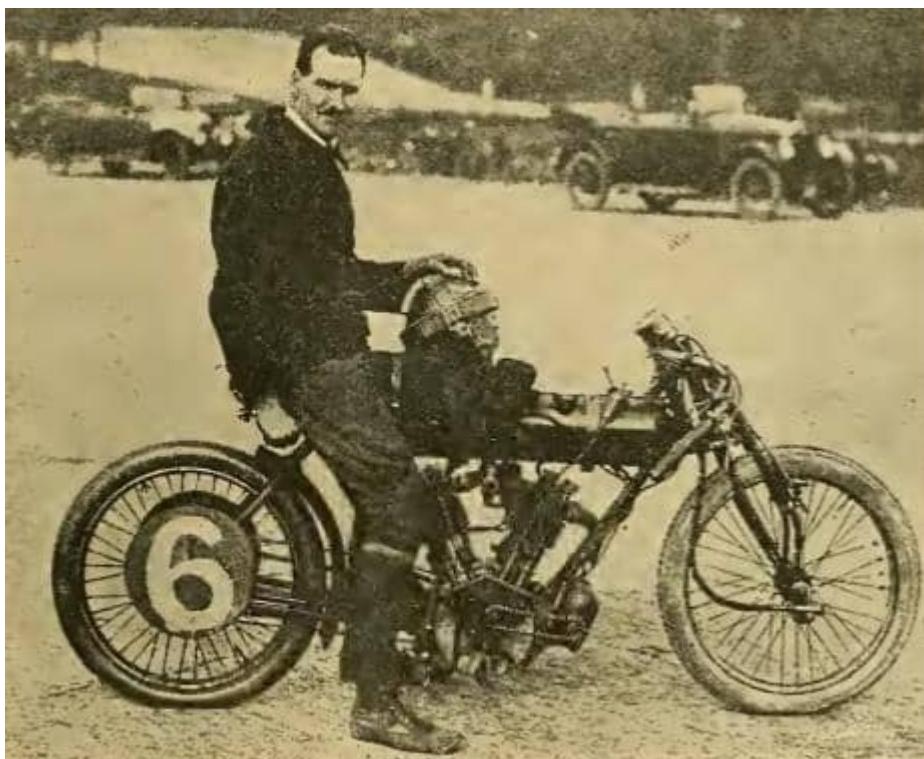
"As a means of carrying the speedometer, watch, and switches, Mr L Keith Clayton, an enthusiastic Sunbeam owner, of Castle Bromwich, has fitted a polished aluminium 'dash' to the handle-bar of his machine. The tank is silver-plated."

"I WAS NEVER A DUDE, as my intimate acquaintances will bear witness," Ixion confessed, "but the exigencies of motor cycling in bad weather have led me to take keen interest in my attire of late years, and I am urged by one or two readers to make public enquiry whether anybody still manufactures the 'umbrella' coat, and eke whether black rubberised waterproofs of stout texture are still obtainable? For those who have forgotten the umbrella coat, let me explain that it was certainly the goods for one-season wear. In lieu of an ordinary collar, it had a poncho-type hole at the neck; this hole was lined with elastic rubber, and cut a size smaller than the rider's neck. To enter the coat, you splayed the hole with both hands, and finally emerged rosy, dishevelled, minus spectacles (if worn), ears, face powder and pomade hongroise; the elastic collar then contracted around your neck, and effectually sealed it against the ingress of rain. Towards the end of the season the rubber neck began to get slightly chafed, and you began to adorn it with patchquicks in increasing number and variety; these had a bizarre but wholly decorative effect on the black collar. Next season you, of course, bought a new coat. In spite of these handicaps, the umbrella coat was easily 'it' for long distance work in the rain. The indignity of entering it, and still worse of leaving it, was easily balanced by the absence of that usual shuddery stream of cold water running down one's back. Are these coats still procurable?"



"Sooner or later the scooter and sidecar was bound to come. Here we have a miniature sidecar attached to a 1½hp Mobile Pup, and although it is the last thing we should advocate, it serves its purpose very well. (Right) A scooter record? Ninety-one miles in five hours is the holiday jaunt covered by this young lady, Miss Cissie Chapman, of Leicester, aged fifteen, on her Auto-glider."

SPRINGTIME FOR IXION: "How many riders have spotted the rapid stampede towards leaf springs? I well remember the day when there wasn't a motor cycle on the road that had a leaf spring in its anatomy. 'To-day, perhaps inspired by other people's successes, all the, designers are recanting their old heresies, and dropping the coiled spring in favour of the pack of leaves. There is, of course, ample technical justification for the change of practice. In a coiled spring there is next to nothing to damp the rebound, whereas friction steadies the action of the leaf pattern, and so minimises the tendency to bounce. Leaf springing for motor cycles is now guarded by a perfect encyclopaedia of patents, and the late comers will have to pay royalties if they are not careful. Still, I note that a few wizards have the necessary cunning to devise dampers for the coiled spring—witness GE Stanley's cute little fitting on the latest Triumph fork. Those makers who cling to undamped coil springs should, have lined the road between the top of Keighley Gate and Harden Bank in the ACU six days. The sound of clashing forks drowned the burr of a cool hundred exhausts. Some riders merely said 'Ouch!' Others had apparently served as sergeant-majors."



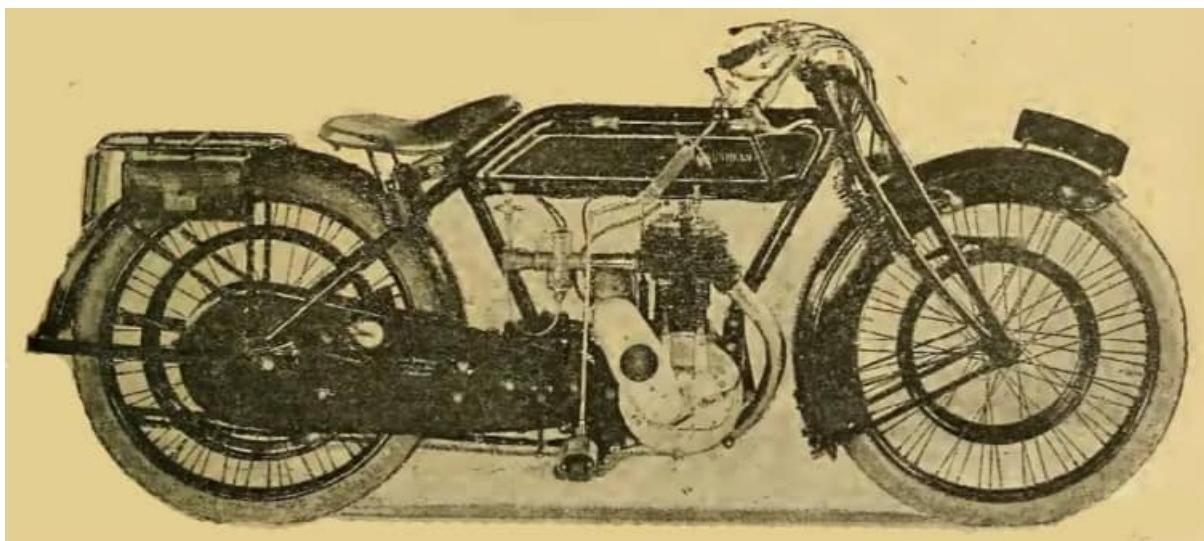
"E Remington (NUT-

JAP), who attained 79.71m in the 10-mile race at Brooklands on Saturday last, thus creating a new record in Class E."

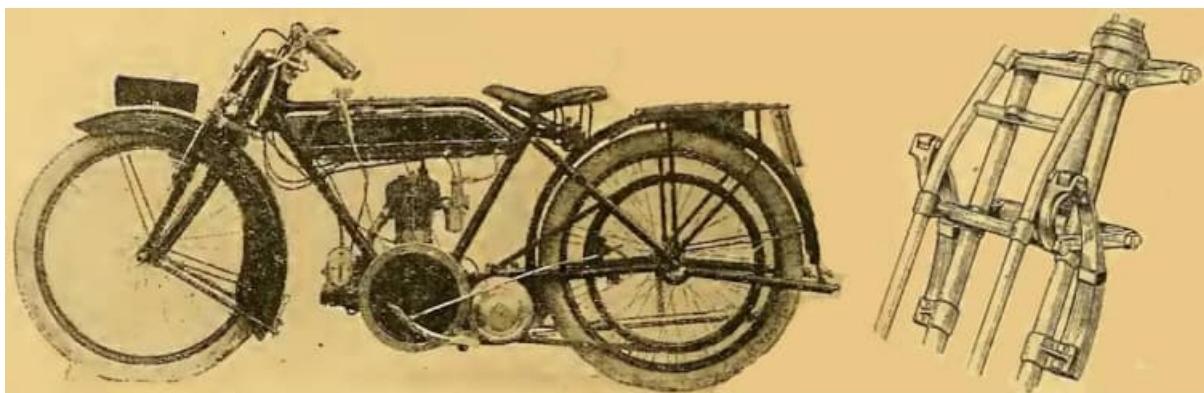
"THE COUNTY POLICE OF LANCASHIRE, who have acquired a Triumph and sidecar, provide another example of the new speed control, ie, by following the suspected vehicle and noting speedometer readings. When the proposed abolition of an arbitrary speed limit is carried into effect, this form of activity will be rendered futile, but no doubt the outfit will be used for road patrol duties."

"IF ALL STATUTORY GAS COMPANIES having annual coal consumption of more than 5,000 tons were compelled to install, within a limited period, the necessary plant for the production of crude benzole, there would at once be available a further 30,000,000 gallons of motor spirit annually. This and other facts regarding the fuel situation are being pointed out to the Government by the Motor Legislation Committee, who represent all interests from the motor cyclist to the manufacturer."

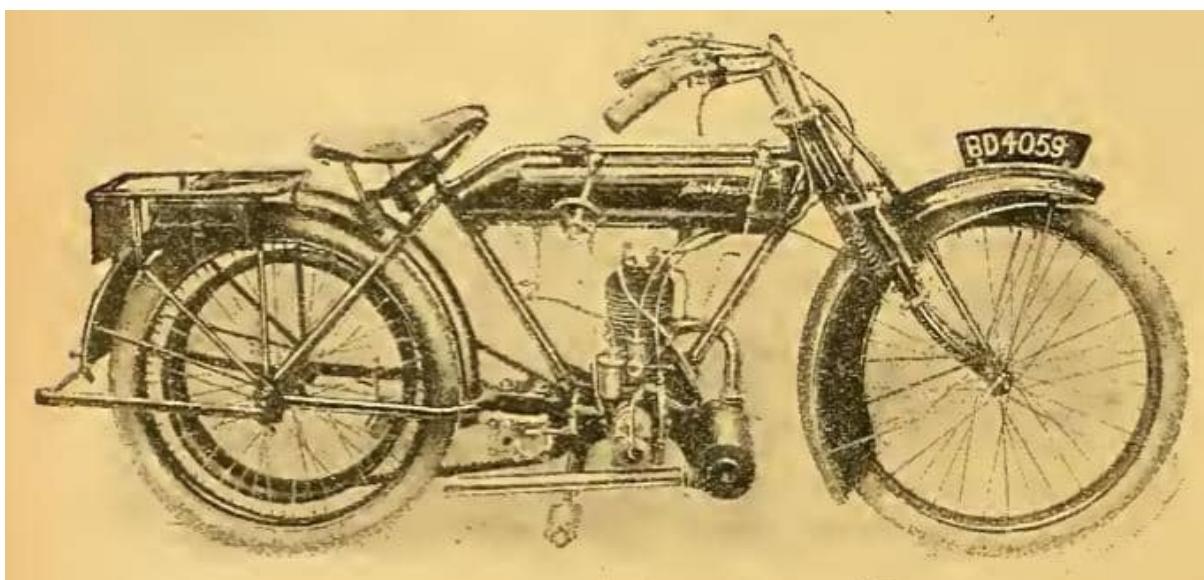
"FOR SOME TIME PAST it has been apparent that the average 3½hp single designed as a double purpose mount is too heavy for purely solo use, and in view of the demand for lighter solo machines, accentuated by the increasing cost of petrol, it would not be surprising if weight is not more seriously considered by designers of all types of machines. The Sunbeam illustrated is 50lb lighter than its larger sister, which has been so successful as a medium-powered sidecar machine. It is also smaller. The new model has been produced to comply with the numerous requests received by the makers for a machine constructed on the lines of the winning machine of the 1920 Tourist Trophy."



The new solo 3½hp Sunbeam, a model 501b lighter in weight than the present 3½hp machine."

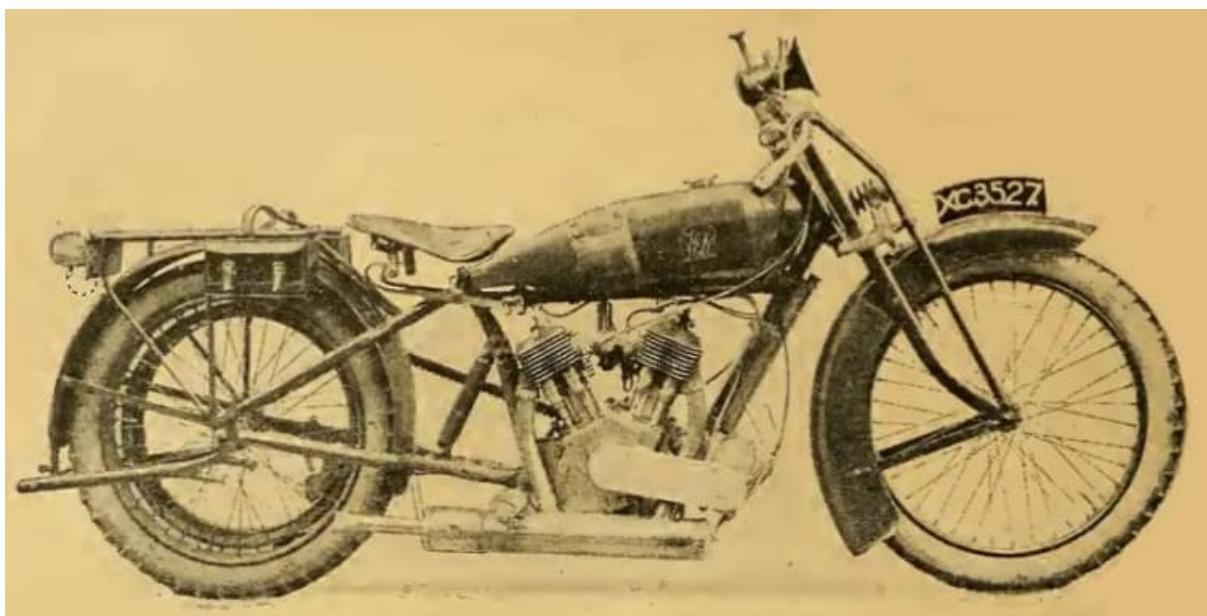


The Marlow joined a growing list of debutantes to use the 2¾hp Blackburne engine. Other equipment included a two-speed Burman box and leaf-sprung forks. "Many little details go to show that the machine is the production of practical riders, and as examples we may quote the very large toolbag and the tank with all its fittings on one side so as to be instantly removable."

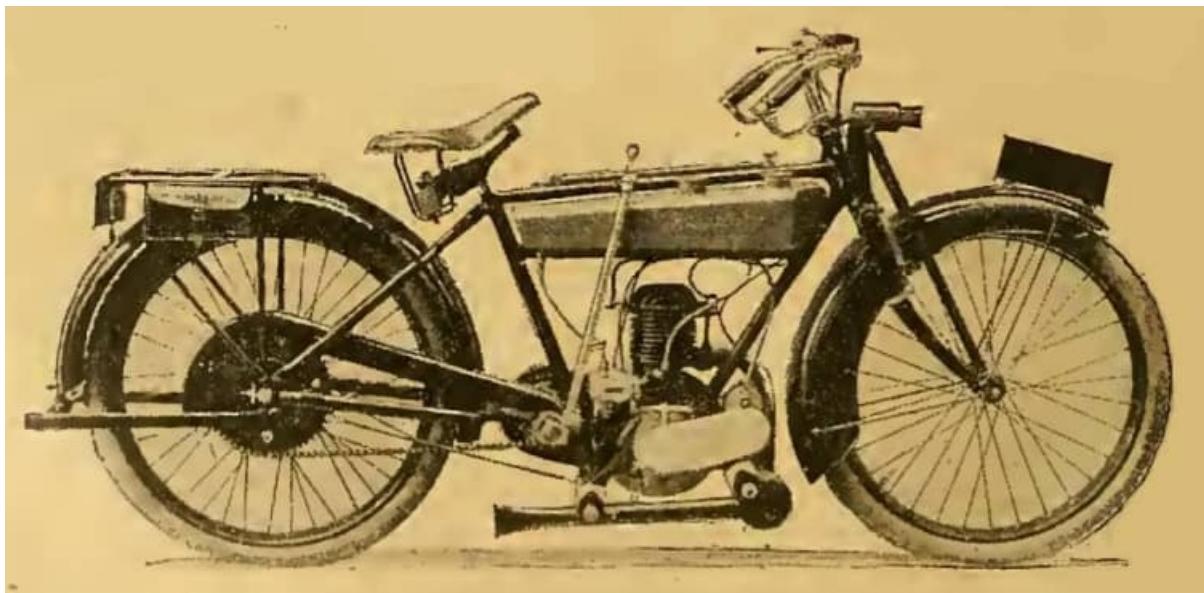


The prototype Arden was shown with a Union engine but production models were powered by a 269cc Arden two-stroke; a two-speed Burman was an optional extra. It was made by Douglas Valentine of Wellingborough.

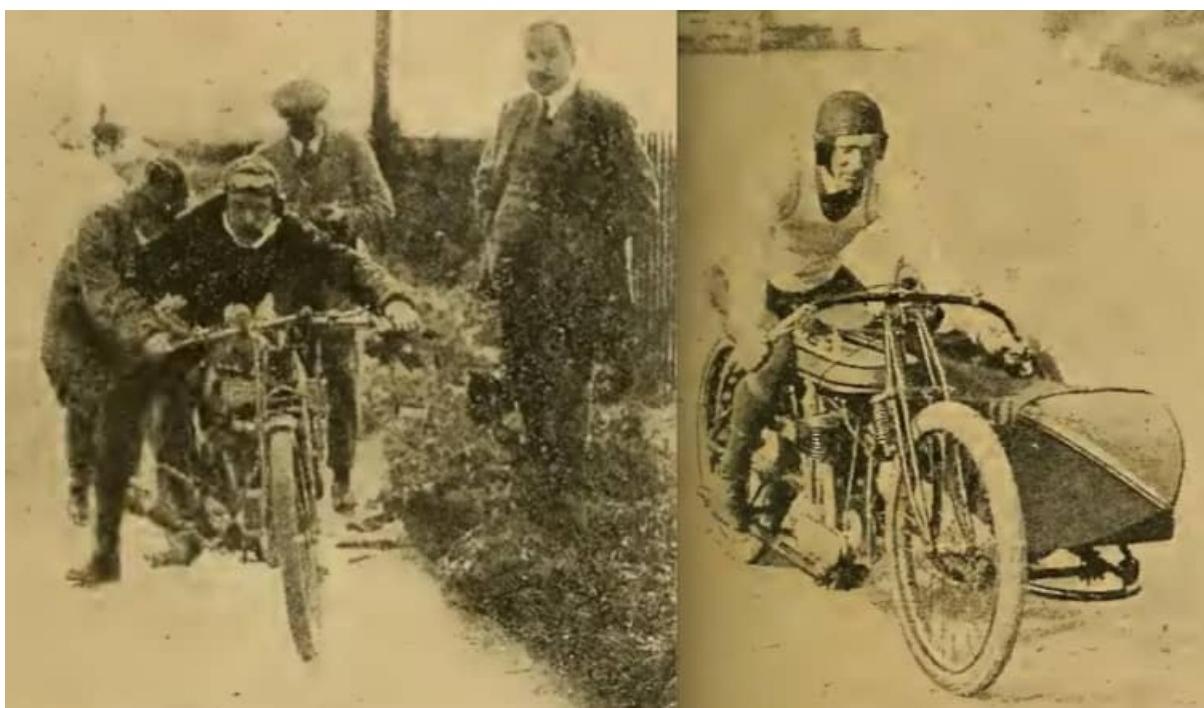
"THE FEW MOTOR CYCLE has been designed by the inventor of the FEW valve attachment, and incorporates a 6hp JAP engine unit, which is accessibly mounted on four engine plates suspended from the two down tubes. At the rear the suspending member is triangularly constructed. The two tubes suspending the engine are bolted to the saddle tube, whilst two similar tubes, brazed to the rear fork, are fixed at the same point. A gear box is not at present fitted, but a novel type of friction gear will be incorporated at a later date. The petrol and oil tanks are somewhat unconventional. The former, of very large capacity and being of the saddle type, conceals the top tube. Lubricating oil is carried in a circular tank which is held by clips to the front down tube, and the drip feed lubricator and pump are conveniently located at the top. Saxon spring forks have been fitted for demonstration purposes. A new design, however, will be introduced later on. Mudguarding has received special attention, and adequate protection at the front and rear is provided. The silencer and the exhaust pipes have been very neatly designed, and a special fitting is provided whereby the rider may, if required, considerably reduce the noise of the exhaust. Tappet adjustment is provided at the base of this device, and is regulated by a small disc and locking ring. The standard JAP tappet may also be used; but, it is claimed, a more minute adjustment can be made from the FEW attachment. The designer, Mr FE Waller is anxious to place this machine on the market, and is open to negotiate with any manufacturer to whom the design appeals."



Here's a bike for sportsmen: the FEW boasted a 6hp 770cc JAP twin, TT bars, a big saddle tank, no gearbox and judging by this picture, not much in the way of brakes.



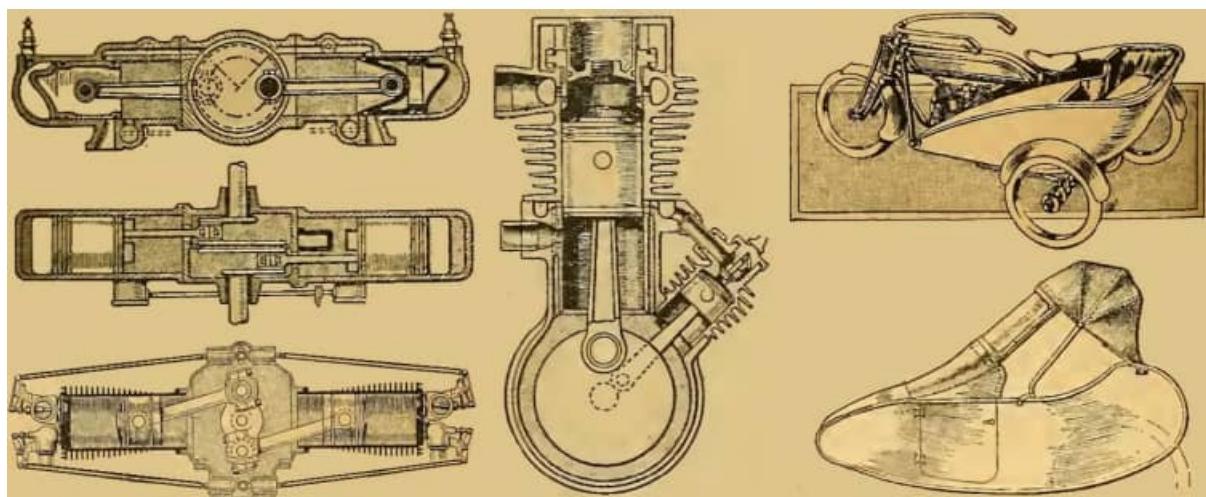
A few months after its launch as a single-speeder the 254cc two-stroke Kingsbury was upgraded with a two-speed transmission involving “two floating chain sprockets, driven from two engine sprockets” and forks with a Triumph-style horizontal spring.



JS Holroyd lapped Brooklands for 12 hours on a 2¾hp Blackburne, covering 602 miles 658 yards to average 50.19mph and beat every record in the 350cc class. The run also set records in the 500, 750 and 1,000 classes. (Right) DR 'Wizard' O'Donovan was at Brooklands on the same day on a Norton combo. He covered 10 miles in 10min 21.8sec to set 500 and 750cc passenger machine records at 57.89mph.

HERE'S ANOTHER BATCH OF patents, reviewed by BH Davies who, as we know but few of the Blue 'Un's readers knew, was also writing as Ixion. Motosacoche came up with a two-stroke flat twin with plans for flat fours and sixes. It featured a two compartment pump designed to push "a cushion of pure air" into the combustion chambers just ahead of the combustion charge. From a designer named WF Lechmere came a two-stroke with a separate pumping cylinder. Two

military men, Major Woodgate and Lieutenant Main, came up with a novel valve arrangement for a flat-twin in which the two cylinders would fire simultaneously. Another military man, Engineering-Lieutenant CI Brooks, says Ixion, "is an inventor who stirs my imagination in several directions. For example, he may have had trouble with a fair passenger who refused to occupy the carrier of a combination, and put in first claim to the sidecar. Anyhow, there is no doubt that the carrier seat is no great fun, and that many riders want to take two passengers. So this patent covers the removal of the back wheel of the bicycle, and the substitution of a chassis, permitting two persons to sit one on each side of the driver, the seat being preferably of the phaeton type, though, of course, two separate sidecars could be fixed to the frame." Passenger vehicles clearly brought out Ixion's whimsical streak. Here's how he describes a sidecar with decent weather protection: "Mr Atcherley's sidecar inspires musings on the strength of calf love. Picture the outfit on Dartmoor in a blizzard. In the sidecar is a sweet young thing, looking too dinky in a mauve jumper, snug, dry, and sucking chocolates. On the saddle, exposed to the fury of the elements, sodden, frozen, with chattering teeth, is a mere male, chivalrously rejoicing at the thought that his beloved is so comfortable, quite ready to perish at her side, not asking for a word of conversation, and aware that she is too completely enclosed to pass him one of those nasty, hard chocolates put in the bottom of a box to make up weight, and which the more selfish types of joy-girl usually reserve for their swains."



Patents on parade: Top left, Motosacoche flat twin; bottom left, Woodgate and Main valve gear; centre, WF Lechmere's two stroke; top right, CI Brooks' trike conversion; bottom left, WC Atcherley's sidecar screen and hood.

"WE MUST HAVE HOME-PRODUCED FUEL! Are we to have an adequate supply of power alcohol? The campaign carried out for several years by *The Motor Cycle*, and its sister journal *The Autocar* is at last bearing fruit, for there are many indications of activity which, combined, may convince the Government that a home-produced fuel is an absolute necessity. The AA is making a special effort to organise deputations to the mayors of all the chief towns and cities with a view to bringing before the notice of the Prime Minister the fact that the price of petrol is no longer a matter of motoring costs, but a national affair affecting all classes of the community. Power alcohol seems to be the ultimate solution to the problem of Great Britain's fuel supplies. This spirit, if mixed with benzole, can be used in existing engines, though if alcohol alone be used a certain amount of modification will be necessary. A practically unlimited supply of power alcohol is obtained from vegetable sources, and here is an opportunity for the Government to open up a vast industry in the Overseas Dominions. In Africa, India, or many of the Tropical possessions alcohol can be manufactured from refuse molasses, maize, potatoes,

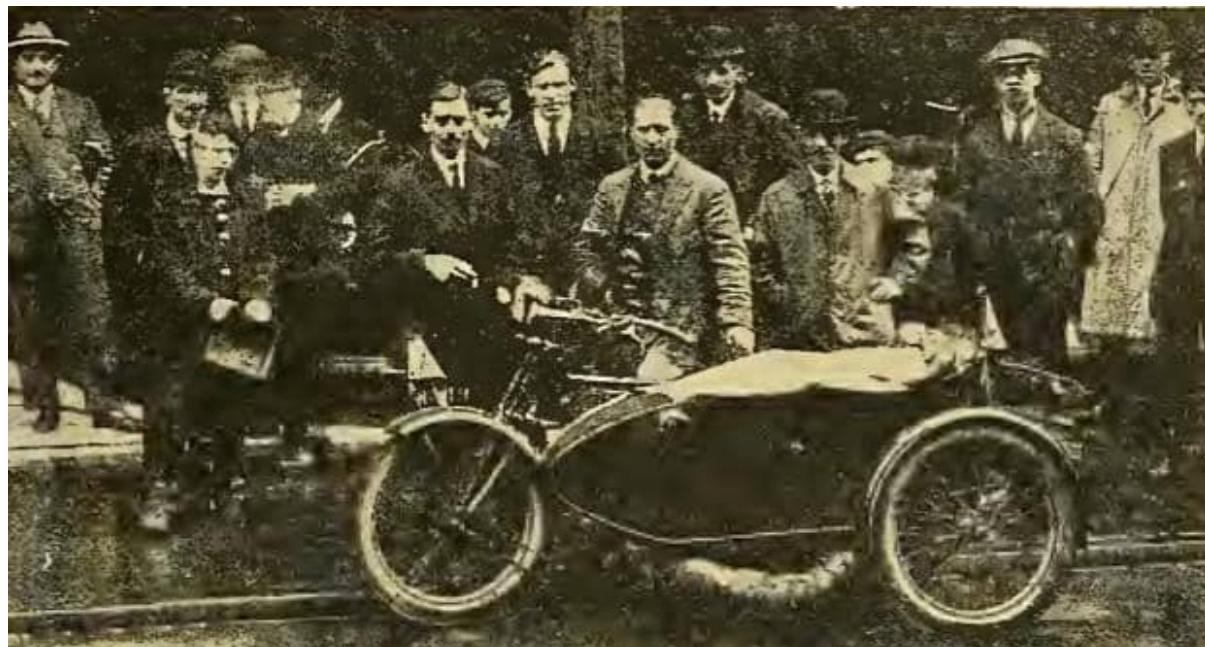
mahua, and many different vegetables. Something must be done at once. This country must be independent of supplies from countries which at any moment may prohibit exports on account of shortage. It is impossible to exaggerate the urgency of this vital question. *We must have home-produced fuel*, by which is meant a source of supply within the Empire and outside the control of foreign trusts. Already, as was reported in our last week's issue, deputations organised by the AA have been before the Mayor of Coventry and the Lord Mayor of Birmingham. Other deputations are being arranged, while the resolution proposed at Coventry last week is being circulated throughout the city councils of the country."



"PV Cunningham (3½hp P&M) about to start an ACU observed test of consumption and mechanical lubrication. Approximately 144mpg (petrol) and 1,000mpg (oil) were obtained with standard gears and an Amac carburetter."

"THE OFFICIALLY OBSERVED COAST RIDE undertaken by JW Wilkin was completed last Friday at 11.40pm when the 4hp Wilkin-Blackburne drew up at Blake's showrooms from which it had started thirty-two days before. In all, 3,315 miles have been covered, the daily average being 160 miles. The first day—Liverpool to Barrow (112½ miles)—was the lowest, and from Grimsby to Yarmouth (235 miles) the highest. Starting from Liverpool on September 8th, the route was via the West and North Coast of Scotland to John-o'-Groats, down the East Coast of Great Britain to Tilbury Docks, along the South Coast to Land's End, then via the Welsh Coast to Liverpool. The coast line was followed wherever there was anything in the nature of a road. Often this was nothing more than a right of way, and from Dumfries to Thurso the machine had to travel over stones and boulders, which the machine withstood remarkably well. This was described as the

worst stretch of road. At Scourie, in Scotland, it was found that the ferry had been out of commission for twelve months. However, the ferryman raked up a craft of some description and got them across. The actual travelling days numbered twenty-one, and on two days the rain was so heavy that no mileage was made, and the motor cyclists remained at Grimsby and Yarmouth respectively. During the first fortnight there was incessant rain, and the rider declared that the journey over the noted 'Rest and be Thankful' hill would have been impossible had it not been for the chain drive...Bitter complaints were made of the terrible roads...Although a few spare valve parts were carried, replacements were surprisingly few, the tyre troubles consisting of five punctures (two in sidecar tube) and a leaking valve. The carburetter and magneto were faultless...Without passengers, the outfit weighed 4½cwt and its load 22 stone. The average petrol consumption was roughly 55mpg, and oil about 800mpg. A feature of the cycle is the 7¼in. mudguards."



"The finish of the 3,315 mile coastal ride. JW Wilkin, who rode a Wilkin and sidecar, is seen standing in the centre, with the ACU observer at his right hand."

FOLLOWING THE ACU'S POLICY of holding general committee meetings in the provinces, the third session of the year was held in Norwich. "On the evening previous to the meeting the committee was entertained right royally by the Norfolk Motor Cycle and Light Car Club. Some twenty members of the committee were present, and among those at the high table were the Lord Mayor of Norwich, Mr WRR Spelman, president of the club, the Town Clerk, the Chief Constable, the County Surveyor, and Commander Windham, RN, the prospective Parliamentary candidate for Great Yarmouth."

"MENTION OF THE STILLBORN 1915 ABC speedster," Ixion remarked, "reminds me of a very sound principle which Granville Bradshaw enunciates where ultra-fast machines are concerned. The gear change in his opinion must be done by the foot. I would go further, and say that a foot gear change is desirable in all modern competition work. Neither in the TT, nor in a hill-climb, nor in a reliability trial up a long, stepladder hill such as White Shaw Moss, is it desirable to remove a hand from the steering bar, even for the fraction of a second. At present the Scott is the only machine on the market designed for a pedal gear-change, though one or two babies have handle-bar gear levers (eg, the Triumph and Beardmore). It is, of course, very

difficult to devise a footchange for the three-speed gears which are necessarily standard behind most engines; but what an asset a foot-change would be in the next TT if the whole trade goes bald-headed for the trophies, and the pace is a real cracker with a dozen top-notchers lasting the whole course at full speed!"

"SIR,—NOW THAT THERE IS ALL this agitation about dangerous driving, why cannot the authorities be more careful when issuing licences? I was astounded on paying five shillings to get a licence enabling me to drive a motor car or motor cycle without any examination or trial. In Ceylon one had to be conversant with the rules of the road. If riding a solo, a European sergeant told one where to go, and rode behind on another motor cycle; if a combination, he came in the sidecar. If satisfied you could drive, then a licence was issued. This would only be to drive a motor cycle; for a car another and a more severe test would have to be undergone. In Durban, Natal, the test is more severe still: eyesight, colour-blindness, speed judging, etc, as well as one's driving capabilities. In England apparently only 5s is needed, and one can drive a car or motor cycle anywhere, and need know nothing about it. I consider the driving in England distinctly bad, and one frequently comes across riders blinding past cross roads, never sounding their horns. I have seen cars packed with men and girls all talking and laughing, and the driver joining in, with his attention anywhere except on his job. From observation on the roads I consider cars are far and away the worst offenders where dangerous driving is concerned, especially fast cornering. A combination has to slow up unless the driver wants the sidecar to tickle his ear.

NHM Ferguson."

"COBALT—THE RARE ELEMENT used in the manufacture of high grade steel—has been discovered in the Peak District. Hitherto England has had to depend upon imports for her supplies which have come chiefly from Ontario, Canada."

THE MANSFIELD & DMCC AND EAST Midlands ACU staged a joint speed trial at Clipston Park, a disused army camp. "The centre of interest was immediately focussed on HR Davies (AJS) and G Walker (Norton)...These two tied for the fastest time of the day, both covering the course, which was a half-mile tarred macadam road, in 23sec—nearly 80mph." Davies and Walker were both riding for the Loughborough & DMCC, along with Harold Petty (Norton) so it came as no surprise that Loughborough won the team prize, ahead of the Lincolnshire Automobile Club and Sheffield & Hallamshire MCC.



"In the vicinity of the disused garrison theatre at Clipston Park, where competitors were busily giving the finishing touches to their engines."

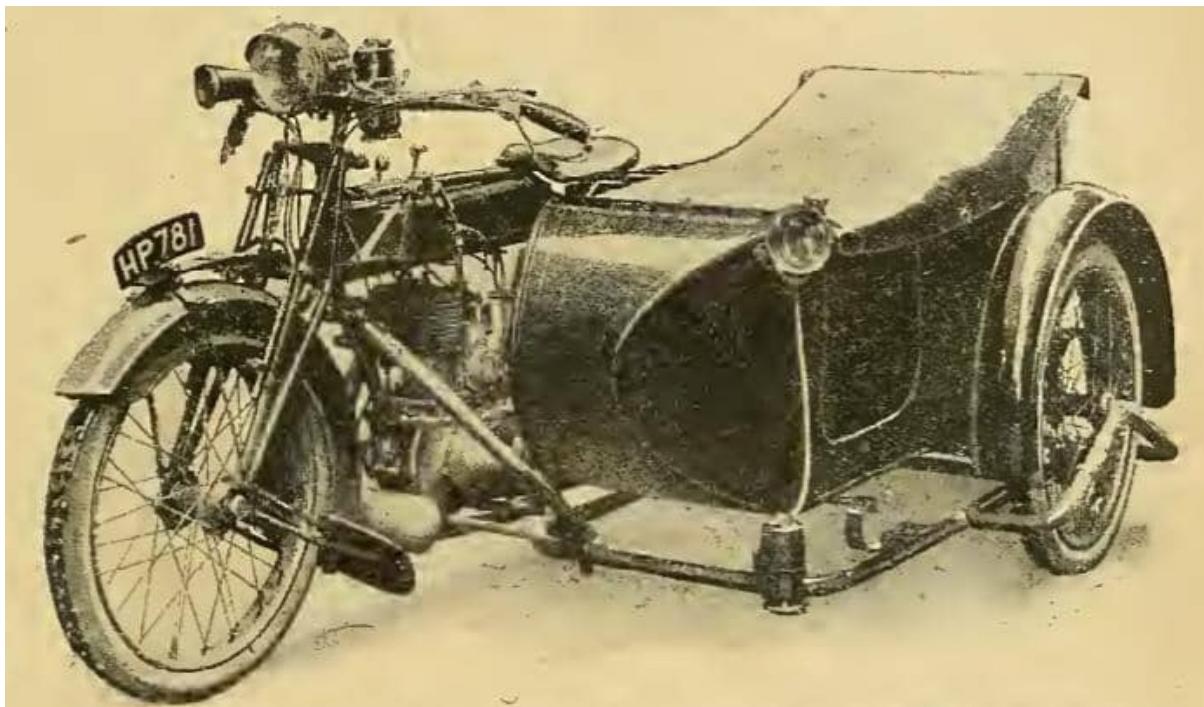
"ONE COULD WRITE REAMS on what not to do when riding a motor cycle, but Mr FH Headley, of the Tan Sad works, seems to have covered most points in fourteen terse hints, which are printed

inside the Tan Sad Insurance Policy, which has been formulated specially for the benefit of owners of pillion seats. Incidentally, this policy has been arranged on the basis that pillion seats do not increase risks, a view not shared by the majority of insurance companies who sometimes charge an extra premium when a pillion passenger is carried. The hints referred to are as follows: 1. Railways have few accidents because they constantly examine all nuts and screws, so that everything is secure. Follow the example and do the same. 2. Do not race. 3. Do not always try to get ahead of everybody else on the road—let the other fellow overtake you if he wants to. 4. Always keep to the left side of the road—always avoid being on the wrong side. 5. Pull to the left quickly when a vehicle wants to overtake you. 6. Never try to pass on a corner. 7. Always make sure the road is clear before overtaking any vehicle. 8. Sound the horn too much rather than not enough. 9. Drive most cautiously across cross-roads and when turning into other roads. 10. Avoid tramlines—better lose a minute than a limb. 11. Be most abstemious in taking intoxicating liquors—better not at all when in charge of a motor cycle. 12. Avoid riding pillion unless you have a properly sprung seat, and especially see that the feet get support. 13. If you are riding pillion, make sure your carrier is strong enough. 14. Be courteous; do not be selfish; always consider the other man—better be safe than sorry.”

“A 180-MILE MOTOR ROAD is being constructed in China, and will extend from Peking to Tientsin.”

“M RAUX, PREFECT OF POLICE in Paris, has taken delivery of a consignment of 2½hp solo and 6hp sidecar outfits manufactured by Bleriot. The organisation will start with 24 machines. The exact duties which the motor cyclist policemen will carry out has not yet been published, but we understand that the number of motor cyclist policemen employed will be increased in the near future.”

“A GEORGE BROUH PRODUCTION: That well known rider, George Brough, who has recently severed his connection with WE Brough and Co, will shortly produce a new motor cycle. As might be expected, the production is designed in order to appeal to the sporting fraternity, and from a careful examination of the drawings we feel confident that it will enjoy a bright future. It is hoped that the first machines will be on the road this year and preliminaries are well on the way. We have been specially requested not to divulge details at the resent moment, but our best wishes go with the designer in his new venture.”



"Having conclusively proved to their own satisfaction that the 3½hp Sunbeam is capable of taking a sidecar anywhere in reason, and having publicly demonstrated the fact in several severe trials, Messrs John Marston set to work to produce a sidecar suitable for the machine, and incorporating their usual high-class workmanship and finish...A very wide mudguard is attached to the body so as to prevent rattles...Two front attachments are supplied in addition to the special Sunbeam rear joints, and all the fittings are integral with the chassis, so that correct alignment is ensured...the sidecar is so perfectly adjusted that it is possible to travel along a good road with hands off the handle-bars."

"IN 1919, AUSTRALIA IMPORTED 20,748,969 gallons of motor spirit, ten times the amount imported in 1910."

"QUITE A GOOD TIP for winter riding emanates from the veteran competition rider, Mr FW Applebee, who makes a compound by heating and mixing resin and oil, for covering up magneto terminals. The substance is not so brittle as shellac."

"WE WOULD REMIND READERS that it is much easier to clean a machine while mud is wet than to wait until it has set hard. In addition, it does less damage to enamel. We always try to give our machines a 'hose over' immediately at the end of a journey, after first wrapping the magneto in an oily rag."

"A HARLEY-DAVIDSON HAS WON the second annual road championship in America. The course was a circuit 302 yards over five miles, and had to be covered 40 times. The average lap time of the winner was 4min 8.92sec, the average speed being 73.63mph."

"WE HEAR OF A NEW two-stroke which is developing 5hp per 100cc!"

"A MISTAKEN THOROUGHBRED: Sandwiched between bees and ferrets, a Bleriot Whippet is offered for sale in the livestock columns of the *Western Gazette*."



"An untouched snapshot of Gus Kuhn (Levis) taking a watersplash in the Levis single-gear trial. Kuhn evidently believed in getting the agony over quickly, for he took the splash at speed, as will be observed."

"IN VIEW OF THE ACCIDENT which took place at a recent BMCRC Brooklands meeting there were many severe comments on the advisability of allowing machines to compete which are unprovided with brakes...It is all very well to argue that the speed was so great that brakes would cause skidding or could not have been used, but the winning machine was duly fitted with brakes, and its rider was only just able to turn the corner after applying them with all the force at his disposal. We certainly urge the track authorities to take steps to see that brakes, of some kind are, fitted."

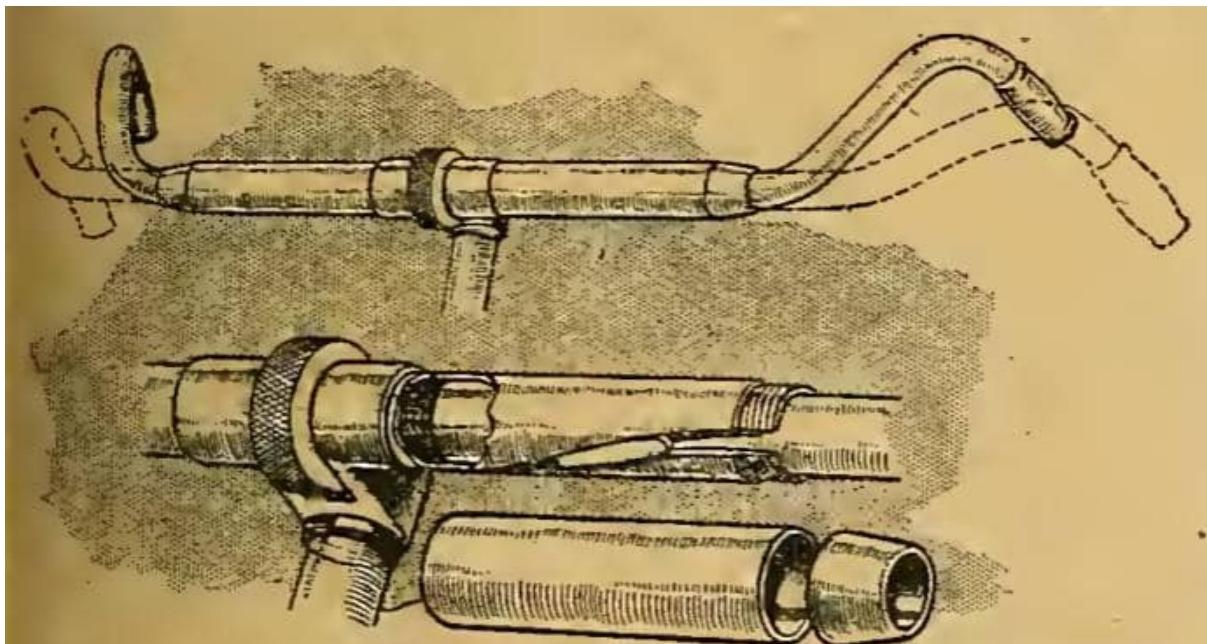
"SOME time ago our contributor 'Ixion' expressed a desire for overalls which could be fastened quickly and surely, and at the same time could be put on and taken off without soiling the interiors, and eventually the rider's trousers. And we think he spoke for the majority of motor cyclists. We have received from Messrs EB Hamel and Sons, Tamworth, most excellent leg overalls, which fully meet these requirements. Their chief feature is the method of fastening by a patent seam made by Kynoch, Ltd, Witton, Birmingham. It consists of two rows of tiny metal steps which may be pulled together by a special clip; and so firmly interlaced that it would actually require a pressure of 250lb to separate them. A single tug at the clip end, however, and they 'rip' apart again as easily as tearing tissue paper. The metal is rustless and apparently indestructible; and the seam, when closed, is hidden from view by a flap. They are of the type which will cause our friend 'Ixion' to rejoice, since the opening extends from the bottom of the leg to the very top of the garment. Our illustration shows clearly how easy it is to withdraw the soiled boot without even touching the interior of the overalls. They are certainly the most practical garment of their type we have ever seen on the market, and, in our opinion, their success is assured."

"SIR,—I HOPE YOU WILL BE ABLE to find room in your paper for the following tip, which I trust may be of some use to disabled motor cyclists. A few days ago I had the misfortune to break my exhaust valve on a 3½hp BSA (1912) when three miles from home on a lonely road. As I have lost my right leg I did not know how to get the machine home for a time, but eventually I struck the following idea, which I hope may be useful to others. First I removed the belt and buckled it through the belt of my coat. Then I placed the free end of the loop made by the motor cycle belt over the front number plate, and taking my crutches found that the machine towed easily and steered well.

Lewis R Oldmeadow."



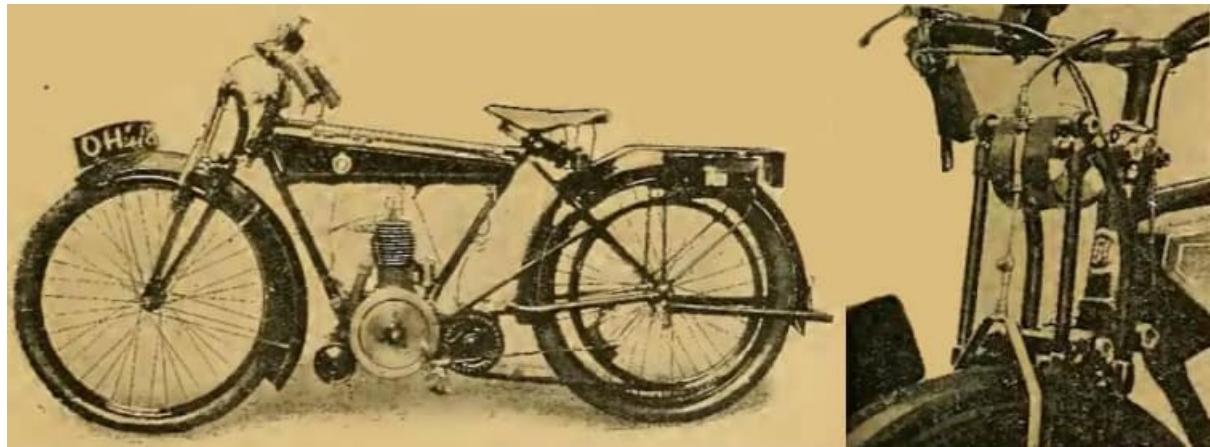
"A BSA owner, who, although disabled, pluckily overcame an awkward situation in the manner described in the accompanying letter."



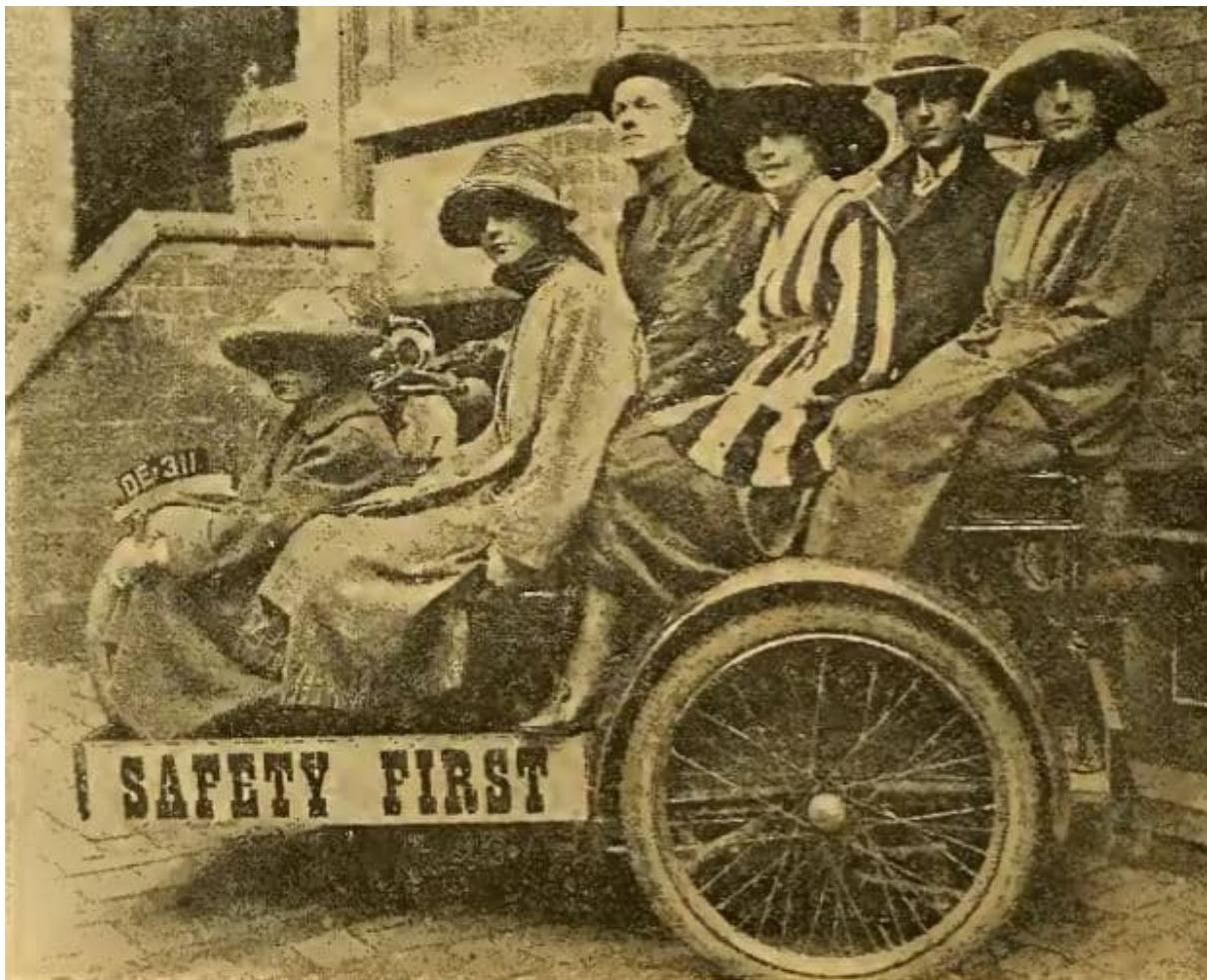
The Murray adjustable handlebar allowed a rider "a change of riding position while on tour without even dismounting from the saddle... by rotating the central milled nut the bars can be made wider by a matter of 6in and at the same time dropped to a very considerable extent. Any variation between narrow touring bars and wide racing bars can be obtained."

A PLEA FROM IXION: "Is it too late to appeal to the tyre and rubber people for a waterproof glove this winter? I will be absolutely outspoken. I have ridden hard for twenty winters, and have only owned one glove which was perfectly satisfactory in winter use—the rubber-proofed Continental, which, of course, was pure Hun. I never used anything else in pre-war days. My last

pair are now tattered to a degree, and must go to the scrap-heap very soon. I have a variety of substitutes, none of them satisfactory. Either they are not genuinely drencherproof, or they are cold, or they are so thick and stiff that I cannot twiddle my levers comfortably. The Continental was as dry as a bone internally after six hours in a snowstorm. It was so thin and light that the levers were just as manageable as when one rode with bare hands in summer. It was unventilated, and kept one's hands warm. If any rubber firm wants to make money, let it study this glove, and see what it can do. Car owners will buy it as greedily as motor cyclists, for the wet blows in through an opened screen as well as across naked handle-bars. Unless somebody comes to my rescue, I must tackle this winter on three pairs of leather gloves discarding each pair in turn as it gets sodden."



Howard and Johnson of Birmingham launched the HJ, powered by a 269cc Wall two-stroke driving through a two-speed Roc transmission (a single-speed version was available too). The top links of the Druid-pattern forks were replaced by curved leafsprings to control vertical and horizontal movement; they were adjustable for load.



"Preparing for emergency: One could not seat six adults on a light car with the same comfort as has been obtained on this James sidecarrier, which is equipped with five Tan-Sad seats.

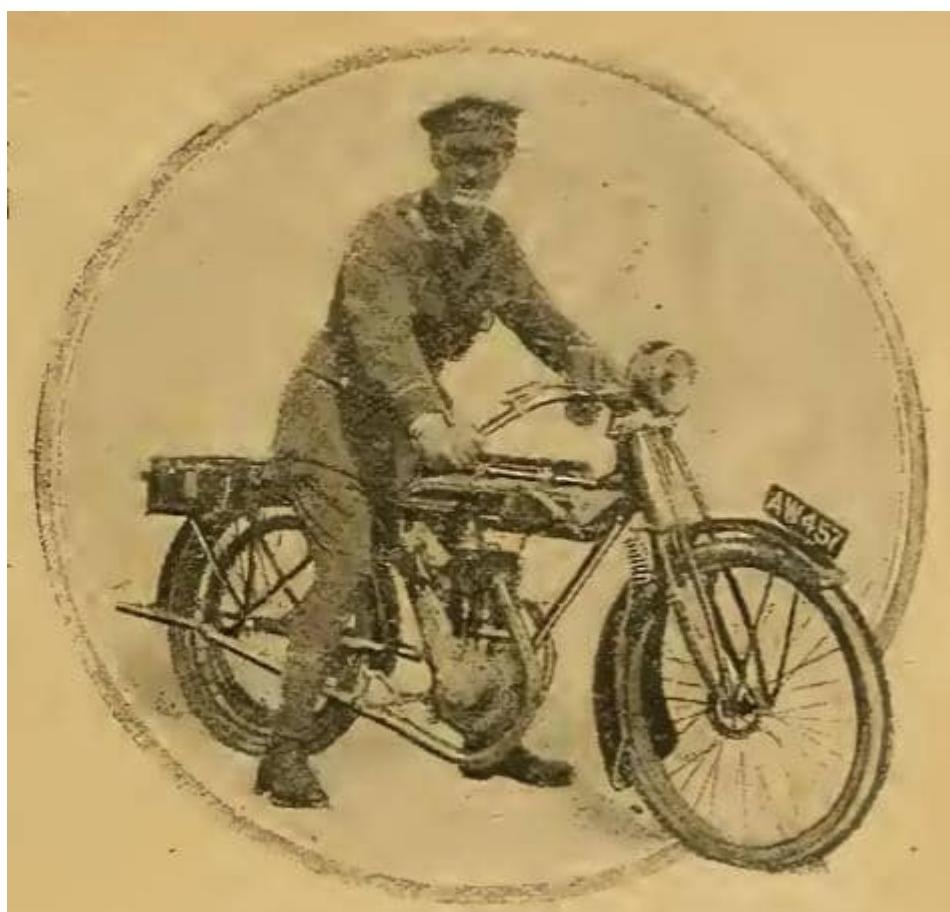
Incidentally, this outfit was prepared in case a stoppage of the railway prevented transit to and from the suburbs to a City business house."

"MOTOR CYCLING IN IRELAND is not quite on a level with the pastime in this country. A reader recently was pulled up very forcibly by a wire across the road, which caused severe injuries."

"A DEPARTMENTAL COMMITTEE HAS recommended that the adoption of a uniform code of road signals shall be made compulsory...There is not a motor cyclist who does not agree that the question of road safety should take precedence over all others, but...a compulsory signals code will create a new class of punishable offence. There are quite enough regulations concerning owning and driving motor vehicles without the addition of a compulsory signals code, in which connection it must always be remembered that the chief reason motor cycles have not been used very extensively in Germany has been the regulations which have always strangled the industry...The Motor Legislation Committee considers, if these new proposals were made compulsory, drivers would be looking for signals instead of taking care to avoid possible causes of accident, and if, for any reason, the requisite signal was not forthcoming, accidents might happen which otherwise would be avoided."

"THE IDEA, NOW SO PREVALENT, that a solo motor cycle to be effective must be equipped with a three-speed gear, chain drive, and other costly and heavy refinements, is to a great extent fallacious. The simplicity and briskness of a single-cylinder 500cc machine will be found to compensate to a large degree for the lack of a kick-starter and gear box. Certainly an automatic

pulley may be fitted to advantage, because it in no way deprives the TT motor cycle of its best characteristics, and it eases the engine just when necessary...In the autumn of 1912, the writer purchased a 3½hp TT Premier, improved by the substitution of a Philipson pulley, and at the United Services meeting, held on the Brooklands track in September 1915 (the machine then being three years old, and, in spite of at least 20,000 miles to its credit, as good as the day it left the Premier Works), it easily won a heat, and almost secured a place in the 600cc Open Sprint, and, without any adjustment to the pulley, tied equal first in the 600cc Open Test Hill-climb. The weight, stripped, on this occasion was only 156lb., and the machine as used for touring scaled under 190lb with lamps and spares...No mechanical trouble was experienced, although the Premier was not specially nursed; but always care was taken, first, not to race the engine until it had warmed up to its work, and secondly, to see that the valves were down on their seatings when a ride was ended; both of which simple rules ensure even expansion or contraction, and make a great difference in preserving the tune of the engine. For comfort and reliability no less than for high rāge speed the writer can recommend such a machine which, with lamps and horn, should not cost than 70% of the heavy tourist or sidecar medium powered motor cycle...A valve cap decompressor was found useful during a sojourn in the Metropolis, but for ordinary country use this was discarded. The average consumption was 80mpg with petrol, and the only time benzole was tried 120mpg was obtained on easy, but muddy roads.—**Velox**“

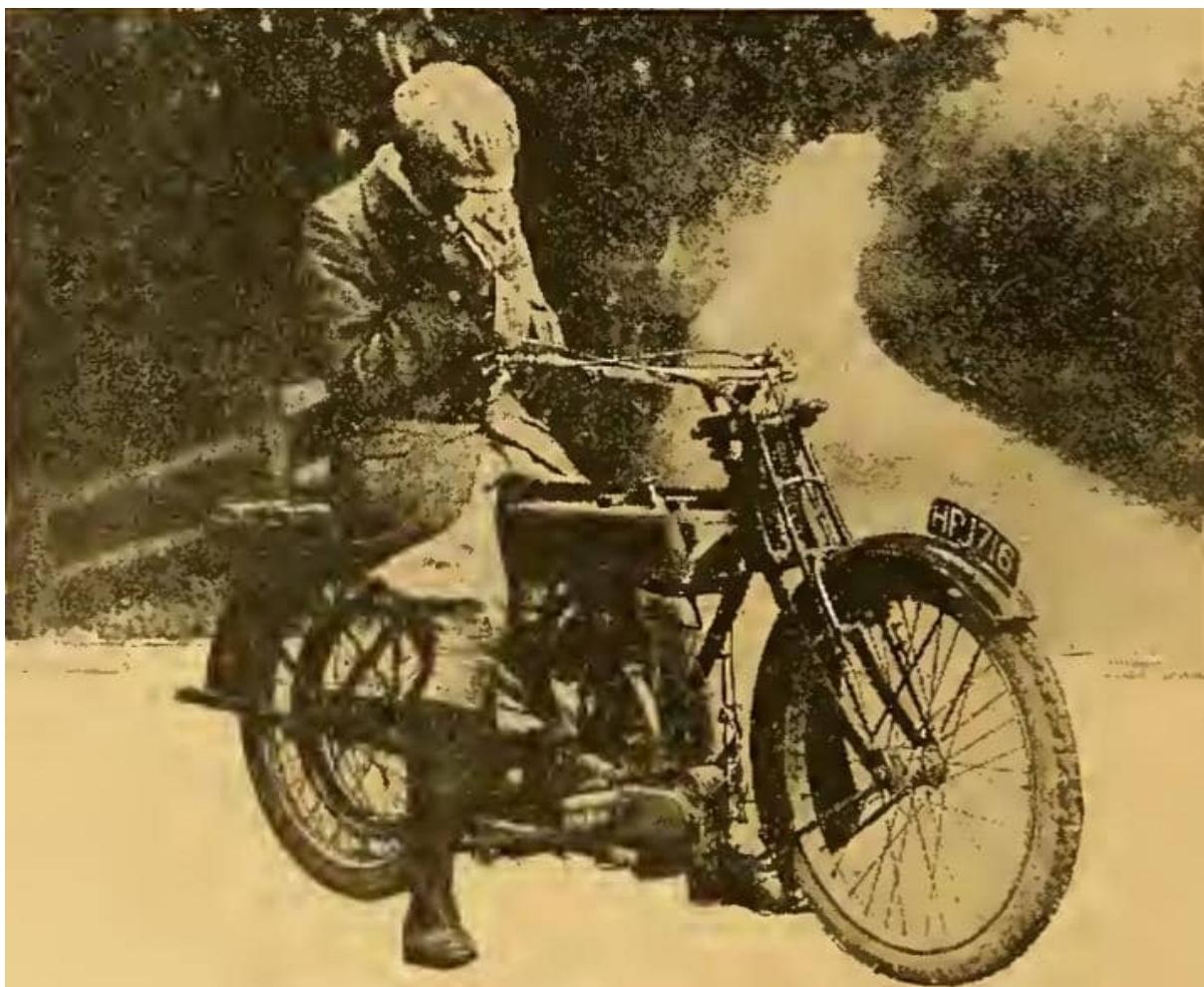


Velox, on his 1912

3½hp Premier.

“THE DOUBLE-PURPOSE 3½hp single-cylinder Coventry Eagle. Recently we were given an opportunity of testing the 1920 Coventry Eagle on the road. The mount taken over was in no way specially prepared in fact, it was one of several just assembled, and had not done ten miles on the road. Under these circumstances, it might be thought that a lot of tinkering would be

necessary before embarking on a long run. This, however, was not the case, the only alteration being a slight slackening of the gear lever spring to allow it to move more freely. The machine is of conventional design, incorporating well-known components, and is of pleasing appearance. The engine is the 3½hp King Dick, made by Abingdon-Ecco, of King Dick spanner fame. It has side-by-side valves, B&B carburettor, and EIC magneto. A short tail pipe is fitted to the silencer, finishing at the gear box. An improvement would be effected by carrying this further to the rear, as the burnt gases make the kick starter and gear box dirty. The usual chain-cum-belt transmission is used, a Sturmey-Archer three-speed gear box being fitted. The driving chain is enclosed in a substantial aluminium dustproof case. Aluminium footboards, swept up in front, are fitted, and the rider has the choice of flat TT or ordinary touring bars. The machine in question was fitted with the latter type, and though we prefer the flat bar for solo work, the riding position was found to be very comfortable. Both front and rear mudguards are reasonably wide and well balanced, and although quite a distance was covered over very wet roads, and several water-splashes negotiated, little discomfort was experienced from mud and water. The first 200 miles were covered principally over main roads, and, as the machine was exceedingly 'new' we took things fairly easily in order to allow the engine to get properly 'run in'. Later, however, quite an interesting 300 miles run was made in connection with a Western club trial, under conditions which would rarely be encountered in ordinary touring. The course for the most part was over rough stony by-lanes in a hilly district, including a considerable amount of second gear work. The machine behaved excellently, showed no signs of overheating, and was very steady on the rough and greasy surfaces. The engine gave ample power, and on only one occasion was it necessary to use bottom gear; this was on a stiff climb of 1 in 4, where the change down was made in order better to negotiate the very bad surface. As regards speed, it can be said that, although no accurate test was made, the 3½hp Coventry Eagle is fast enough to satisfy the average soloist. It is capable of maintaining a good average over long distances without the slightest signs of distress. This was proved on the return journey, when, being without lamps, it was found necessary to cover the last seventy-five miles in under three hours...judging by its performance as a solo mount, and from our observations of several we have seen in use with a sidecar, we know that it can truly be described as a dual-purpose mount. In these days of super-efficient twins riders are apt to overlook the main advantages of the single, viz, its simplicity and lower production costs, which in turn account for its inherent reliability and economy."



"With up-turned bars and footboards, the 3½hp Coventry Eagle is a comfortable touring machine. TT bars are an alternative fitment."

"GAILLON HILL-CLIMB, WHICH was revived after a lapse of six years, was remarkable for the records established in all classes, for the number of entries, and for the vast amount of interest evinced in it by the general public. The fastest motor cycle time was made by Pean on a 750cc Peugeot, with which he climbed the 1 in 10 kilometre hill, flying start, in 29.6sec, or at the rate of 75.5mph, this being the highest speed ever attained by a motor cycle of any kind on Gaillon Hill. In this class the Frenchman's greatest competitor was the well-known AH Alexander, who was defeated by 3.5sec. Pean also rode a Peugeot in the 500cc class, when he again broke a record, with the time of 30.2sec, beating the Alcyon with a margin of nearly 4sec. In the 350cc class the Alcyon got the first two places, followed by Alexander on a Douglas, who later secured first place in the 1,000cc class. Porter, on a Levis, was a fairly easy winner in the 250cc class. In the sidecar class AH Alexander did very fine work, getting first place in the 500cc, 750cc, and 1,000cc classes, his respective times being 45.2sec, 46.6sec and 45.4sec. It was certainly a day of records, even more for the motor cycles than the cars; for 74mph on a 3½hp machine compares more than favourably with the 108mph record set up by the 450hp Sunbeam. The organisation was excellent, the road being guarded by troops, and having barbed wire on each side in order to keep too-enthusiastic spectators from crowding on to the course."



"1½hp and 450hp. These two vehicles competed in the premier hill-climb of France. The car accomplished 108.3mph, as compared with the Skootamota's 24mph. (Right) A speed impression of Alexander taking his Douglas sidecar up Gaillon Hill at nearly 50mph."

"SIR,—WITH REFERENCE TO Ixion's " paragraph regarding gear change for speed and competition work, I am entirely in accord with what he says, but handle-bar control for the clutch is necessary as well. I think if he reads this year's TT specifications he will find that many makers fitted Sturmey-Archer gears with the operating lever fitted low down for foot operation—Norton, Blackburne, Levis, Ivy, etc. So designers, as well as riders, appreciate this type of change.

CNG Phillips.

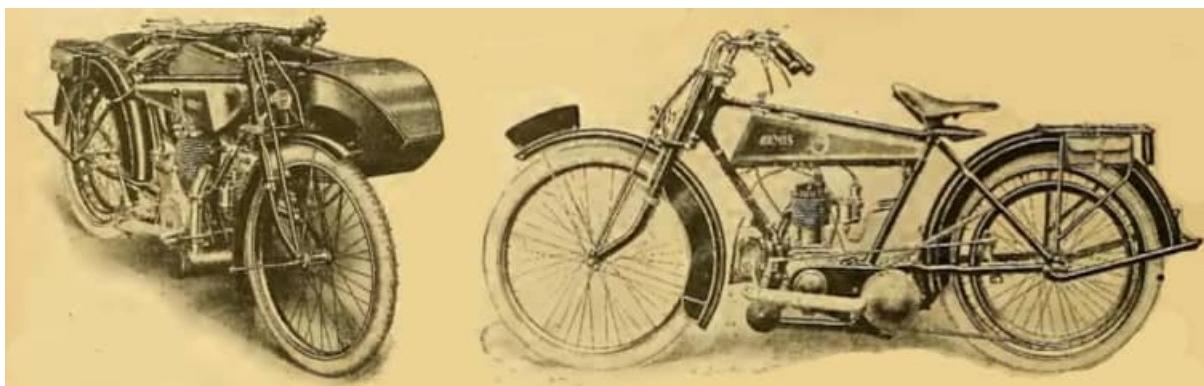
"SIR,—DURING THE PAST FEW months record-breaking has been a very active branch of the sport of motor cycling. Many attacks have been made on existing figures, yet it is apparent that almost all have been made on long distance records in one or two particular classes...The 1,000cc solo class seems to be almost wholly neglected, and most of the records standing in this class date from 1913 or thereabouts. The flying kilo speed—93.48mph—does not strike one as very up to date, considering that the corresponding American figure is 115mph, and the 350cc class record, viz, 75mph, is only 18mph slower. Another noticeable fact is that only two kilo or mile records have been broken since 1915. Why is this? Surely modern machines are not getting slower? How about the little racing AJS, the twin Rudge, or the new 500cc ohv Douglas?

Lewis E Green.

"SIR,—ALTHOUGH A CONSTANT READER of your paper for a number of years this is the first time that I have ventured to address you, and I do so in the hope that my experience may prove a warning to some of your readers. A short time ago I was returning from the golf links with a lady passenger in the sidecar. She was wearing a long scarf wrapped once round her neck; and the end of it caught in the sidecar wheel. She not only received a severe wrench, but all the skin on the right side of her neck was taken off. Fortunately we were going slowly at the time, and, fortunately, it was a light summer scarf which broke under the strain. I shudder to think what would have happened if we had been going fast, and it had been a thick woollen muffler. In future my passengers will have their wraps well and carefully tucked away and (despite the traditional pictures) no loose ends floating in the breeze.

'Fellow', Salop.

Seven years later international superstar dancer Isadora Duncan, who had clearly not read Fellow's warning, died when her scarf became entangled in the wheels and axle of the car in which she was riding.



Having entered the market after the war with a solo powered by a 350cc two-stroke Precision engine, Armis of Birmingham came up with a 'semi-sporting' sidecar. Equipment included a two-speed Burman gearbox and Saxon forks, which also featured on the company's new lightweight with a 2½hp JAP engine.

"THE MINISTRY OF TRANSPORT scheme for numbering and classifying roads throughout Great Britain is nearly completed, and will be put into operation early next year...there are roughly 1,000 first-class or main roads and 1,000 second-class roads, and each will bear a distinctive number of signposts throughout its length. The London-Edinburgh road will be No 1."

THE RIDER OF A 2½HP Wooler cruising at 25mph on the Aylesbury-Uxbridge road covered 28.1 miles on a pint of petrol, equating to 225mpg.

"DURING THIS YEAR THE LUCAS Magdyno, which combines the high-tension magneto and a six volt dynamo in one machine, has given every satisfaction in the hands of both competition riders and those private individuals who have been fortunate enough to possess the equipment. Indeed, so successful has been the results of continued usage that no alterations are meditated for next year's production, which will be on a larger scale than heretofore. The only item needed to make the set complete in the past has been a suitable electric horn, and this omission has now been rectified—an excellent warning signal of the usual Lucas quality and appearance now being available. Provision for the horn connections are provided on the usual junction box, and a very neat handle-bar switch. The mechanism of the horn is strong and substantial, and is readily accessible for adjustment of the contact screws should this become necessary."



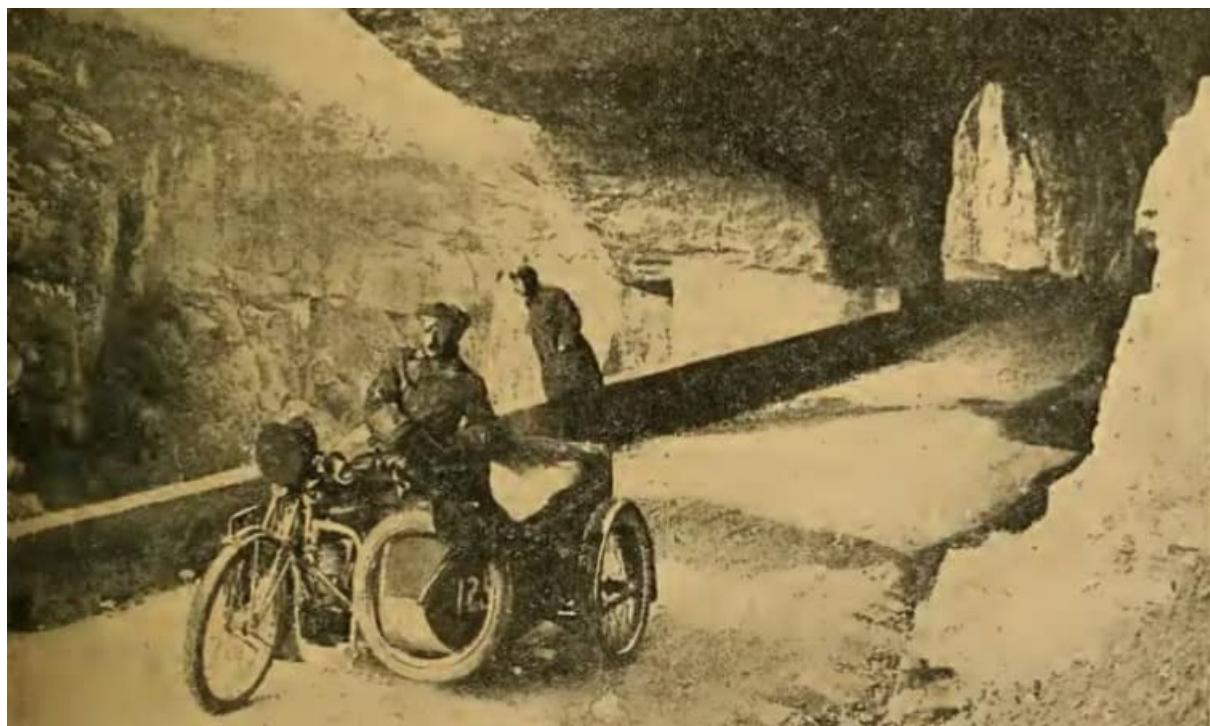
Having proved the reliability of its Magdyno, Lucas complemented it with an electric horn.

"THE OTHER DAY BUSINESS took me into one of the hilliest counties in England," Ixion reported, "where I presently foregathered with two riders of 1911 machines—a Rudge and a Triumph respectively. Ancient memories revived as I handled these aged crocks, as the modern knut would doubtless stigmatise them. The main impression they made upon me was that of an extraordinary lightness—both felt much more like babies than 500cc machines. The Rudge had an NSU gear, but the Triumph was still fitted with single fixed gear; both machines are accustomed to tackle anything short of an ACU freak hill, and as far as I can judge, their climbing is better than that of a modern 500cc on its top gear. They look quaint and have grown very shabby, but they are fine goers still. Neither of them has required any major replacements in ten years of hard service, and the original cost of each was some £50. Cheap transport, gentlemen."

"TWO FIRMS WERE ADVERTISING WINDSCREENS for solo machines in the last issue of *The Motor Cycle*," Ixion remarked. "I tried a home-made gadget of this type many years ago, and experienced a lot of trouble in making it sit up at the correct angle against head winds, especially when I was speeding. It is, I suppose, a logical adjunct to the leg shields which many all-weather riders now fit, but it stands in quite a different category from the car windscreen. When you are seated in a deep coach-built body with a good screen ahead of you, you can keep both dry and warm at speed in any weather. On a motor cycle you must trust your clothing, and not any gadgets carried on the machine, for warmth and dryness. Whether you carry a windscreen or not, you must wear good, thick, waterproof garments. To my mind the windscreen offers two special benefits. Its chief merit is that if its dimensions are correct, it protects that vulnerable gap between the coat and the chin, and prevents spindrift from blowing down the front of your neck. Its other value is that if you are butting into an ice-edged nor'-easter on a dry day, your face need not get frost-bitten. So long as you don't expect it to keep your whole body dry and warm, it is fine. I am not sure that the best motor cycling windscreen is not one those towel things which Eastern women tie round the lower three-quarters of the faces; I once met a rider wearing such a contraption on a snowy day, and whilst I deplored his appearance, I envied the comfort he was enjoying. My own face was frozen stiff, and all my underclothing was positively slushy."

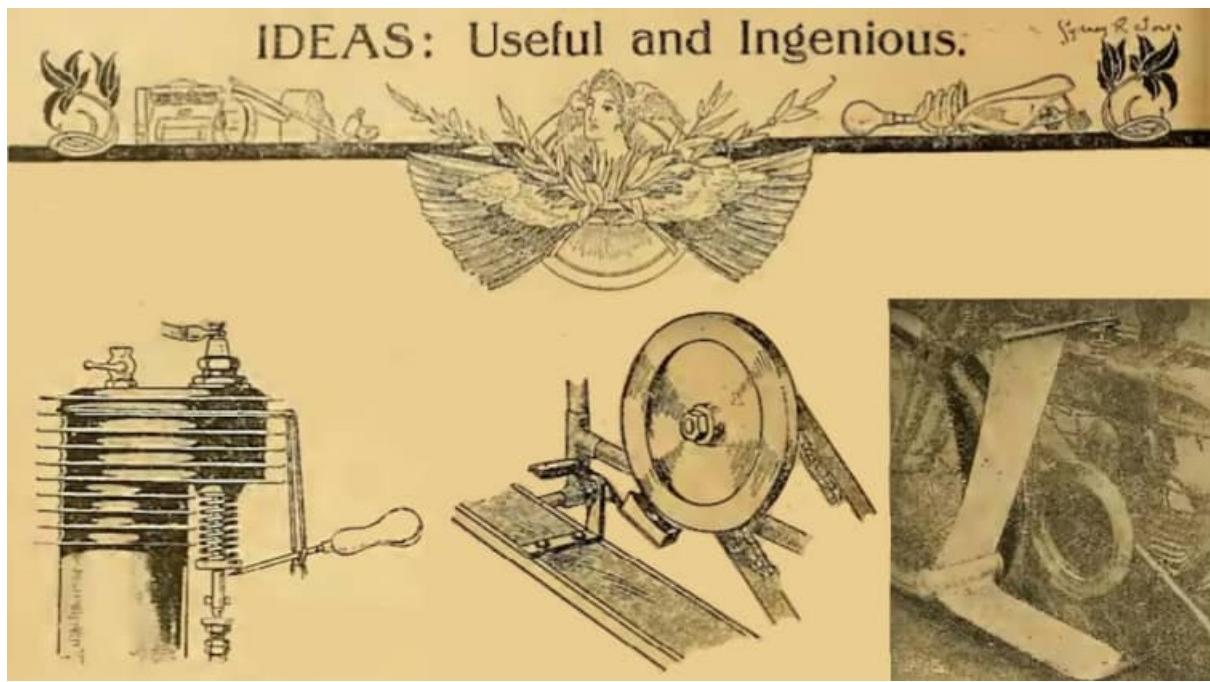
"THERE WAS EVERY EXCUSE for hand pump oiling," Ixion remarked, "so long as our engines had plain bearings of somewhat inadequate area, and their cylinders and pistons were specially designed to distort as much as possible. But it was distinctly disappointing to find the old-fashioned type of oiling perpetuated on a fin de siècle 'bus like the ABC with not an oil-thirsty bearing in the engine, with symmetrical cylinders of even wall thickness, and pistons developed from aero engine practice. I believe Mr Bradshaw's original design included sump oiling, and it would be interesting to hear what snags his testers struck in a system for which most lazy riders continue to sigh. A cynic of my acquaintance avers that there is an unholy alliance between engine designers and sparking plug manufacturers in this matter, the idea being to compel the clumsy owner to buy a fresh plug once a month; but I cannot swallow this foul libel. Meanwhile, I plaintively proclaim my ideal. A colleague on the staff of *The Autocar* lives on board a small, cheap car. He has an oil indicator on his dash, but it never works, and never has worked. He never buys any oil by the roadside. He never carries any oil (outside his engine, bien entendu). He never thinks about oil, except at the monthly go-over-everything. He never carries a spare plug. He never cleans his plugs. He never buys any plugs. I envy him. There are four seven-and-sixpenny plugs waiting on my desk now. All of them are charred and blackened. I shall get myself into a filthy mess scraping them. Next month they will want scraping all over again. Such

is life. Incidentally most of my small engines consume more oil than his large engine per 1,000 miles."

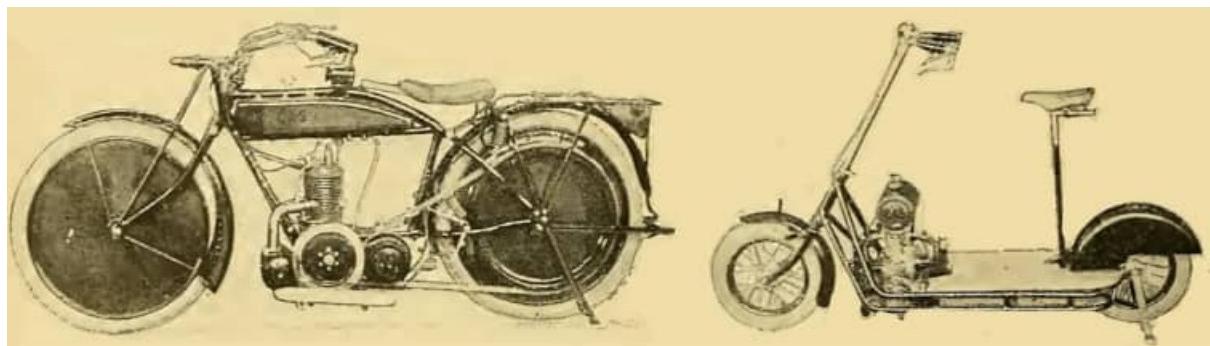


"This photograph conveys a good idea of the engineering difficulties that road builders experience in mountainous countries. The scene depicts a Triumph in the French Alps, on the road to Paget Thenier from Nice, a district noted for its magnificent scenery."

"More barked knuckles result from attempts to remove valves without a proper tool for the purpose than, probably, from any other adjustment on the motor cycle. Yet there is an extremely simple method which only calls for a strong screwdriver or similar tool, and a length of string or, preferably, wire. The illustration shows how the loop is made to act as a fulcrum for the lever. Numbers of WD Douglasses are now on the road minus a front brake, and if their owners are to avoid police persecution this omission must be rectified. The simple flywheel brake illustrated costs about 2s 6d, compared with 40s for a new Douglas front wheel brake. A practical mudshield designed by Messrs F Oxley and Co, London, N1: each footboard consists of an aluminium casting, at the forward end of which is a cylindrical chamber enclosing a spring-controlled roller blind. When out of use the shield rolls away in the cylindrical casing, and is thus unobtrusively stored."



DIY valve spring compressor, DIY Douglas flywheel brake; retractable legshields.



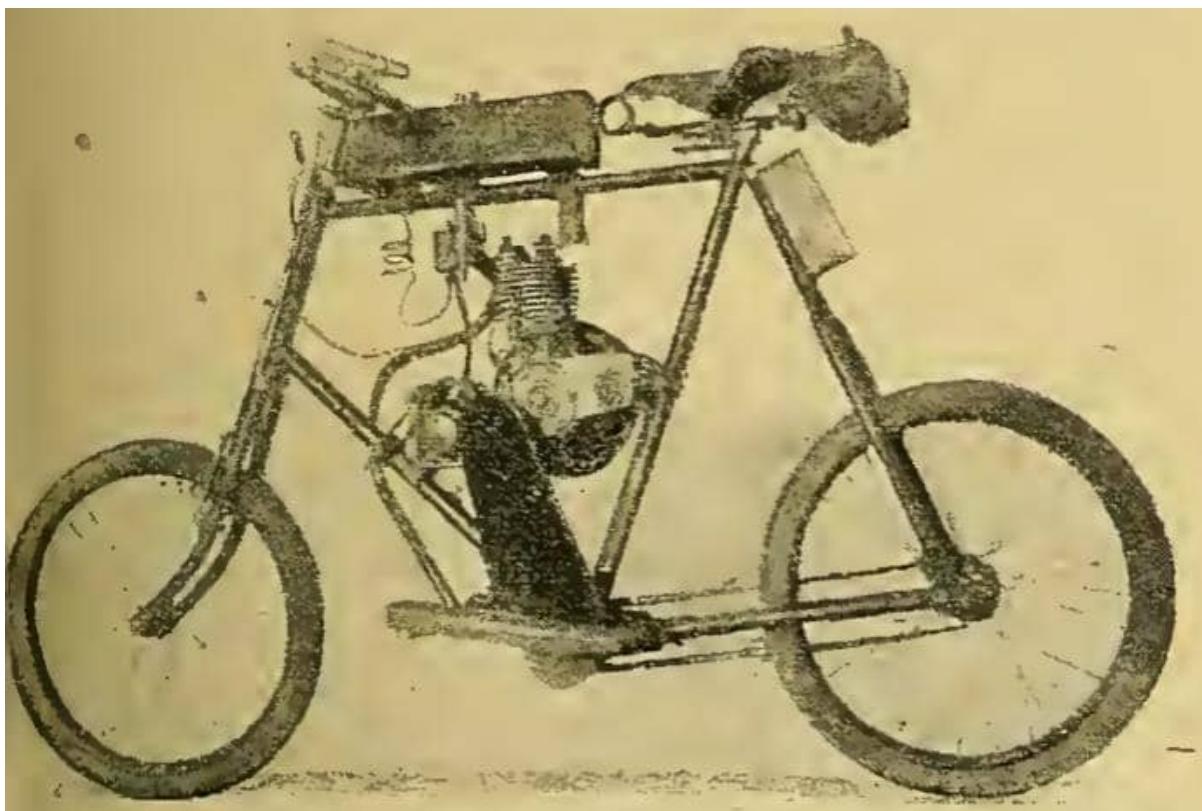
CAS, the leading manufacturer in Czechoslovakia (as it was then) was at the Prague Show with a lightweight bike and a 120cc flat-twin scooter. The Blue 'Un remarked: At present, the latest models of the Continental makers have a strong British flavour...The motor scooter, too, is popular here, which fact in itself speaks volumes for this new style of vehicle. For in such a hilly country the standard of efficiency for machines to be of any practical use must needs be a high one."

"SIR,—THERE SEEMS TO BE a lack of the 'live and let live' feeling amongst your correspondents who are now raising an outcry against that part of the fraternity who have 'open exhausts'. I am afraid that I must confess to be one of the "spoilers of a good sport" (to quote a recent letter), because to me an open exhaust means power, and power means speed, and speed means all. If I care to sail close to the wind in this matter, whose fault is it but my own if I am fined? I would willingly enter for all the trials which are held, except that I have some regard for my machine, and I am by no means a Rothschild. What sport is there in going in for a trial in which you risk getting your frame broken, your tyres cut to ribbons, and yourself covered with bruises?

Rudge Rider, North Ferriby.

"FOR THE PAST THREE YEARS I have been riding a motorised bicycle, using the original cycle frame, but with 20in Autowheel rims. I find these wheels much stronger, and tyres are better also. I scrapped the pedals and brazed a piece on to the end of the bottom bracket axle, and fixed the sprocket wheels on both ends, and thus made an all-chain drive. The footboards are

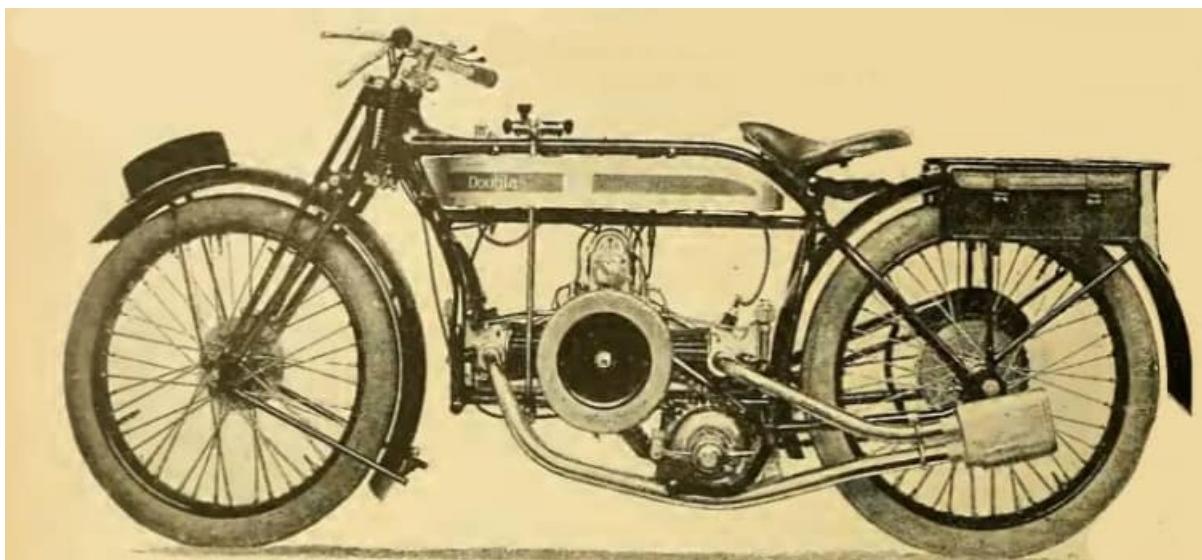
from locally cut cedar wood, and I have fitted the engine to the frame with a specially shaped and carefully fitted piece of hippopotamus hide, which is splendid stuff to stand any strain, as it does not split or tear. I use it for file handles (it goes up to 2in in thickness). I think this is the first instance in which hippopotamus hide has been used in the making of a motor cycle. We have only one road here, viz, to Livingstone, but it is a good one and eight miles long. I can get 25mph.
JW Soper, South Rhodesia."



Somewhere in the Rhodesian veldt there roamed a hippo with engine plate-shaped holes in its hide.

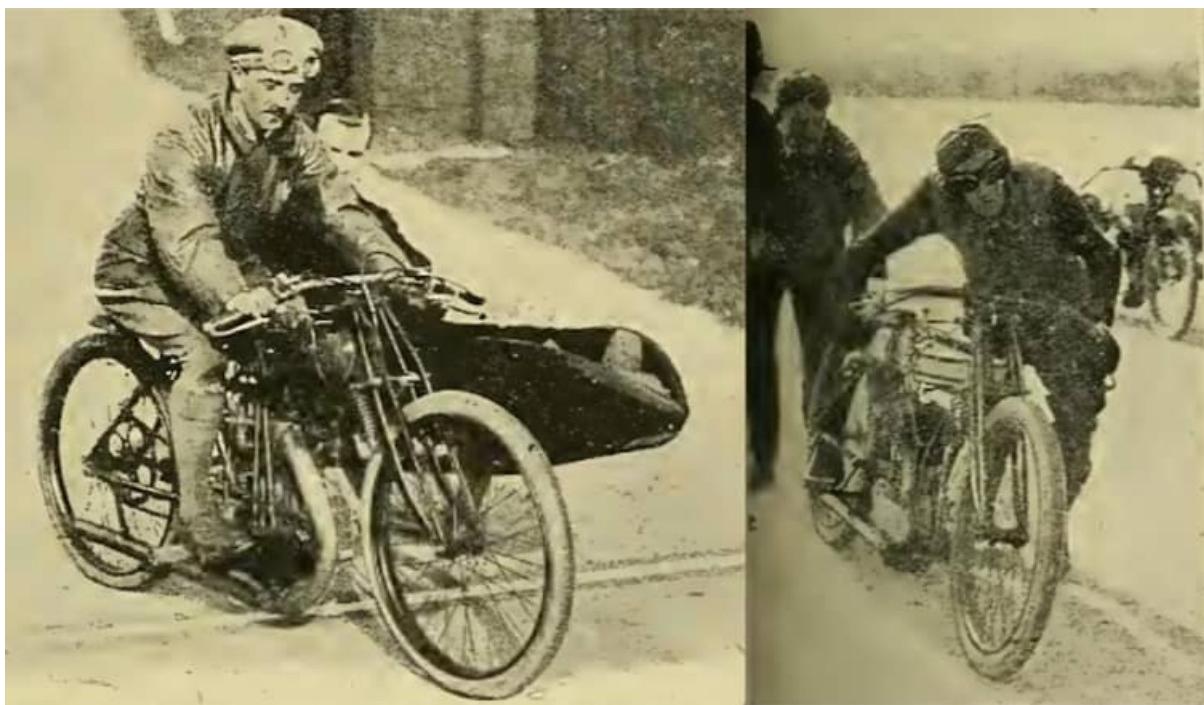
DOUGLAS LAUNCHED A 3½HP SPORTS MODEL based on a potent ohv 350cc engine that had proved itself in a number of road races, hill-climbs and speed trials. The Blue 'Un noted: "One astonishing thing about this engine is that, although it is capable of remarkably high speeds, it is quite docile for traffic work, and extremely flexible. Its acceleration is wonderful, and, sans silencer for track work, it has an exhaust note sharp enough to please the most meticulous critic who judges efficiency by sound...the engines which have performed so satisfactorily are uniformly good, and have required no 'faking'—that is to say, that it is not a case of a star engine out of a batch, usually difficult to duplicate, and generally impossible as a marketable proposition. The speed of the new Douglas engine lies in its design, and any difference next year between the speeds of SL Bailey [who had set five and ten mile records at Brooklands, at 66.18mph and 64.65mph respectively] and the private aspirant for honours in the field of high speeds will be one of tune and skill." Features included all-chain drive; detachable cylinder heads with aluminium oil reservoirs to lubricate the rocker shafts; a rear drum brake and "a novel type of front wheel brake, which takes the form of a steel disc with an inverted V periphery upon which works a double-faced shoe. This brake is very powerful, but sweet in action, and remains undisturbed when the wheel is removed...The guard over the primary drive chain is secured by spring clips, and so may be removed without the use of tools...the height of the

machine is 1½in lower than any previous Douglas model, and, when stripped for a speed competition, it weighs but a little over 200lb."



"Flywheel side of the new sporting type 3½hp Douglas, a production model of a very successful speed machine."

"A SERIES OF WONDERFUL RECORDS were put up in the early part of last week, HR Davies, riding a single cylinder 2¾hp AJS (74x81mm, 349cc), gaining several class B (350cc solo) and class F (350cc sidecar) records at extraordinary speeds. His time for the flying five miles, with sidecar, was 5min 11.6sec, a speed of 57.77mph, beating SL Bailey's 1914 long standing class F record. He also succeeded in beating the class F ten-mile standing start record, time 10min 52.8sec/55.18mph, the previous best again being Bailey's Douglas times in 1914." Running solo Davies raised the class B flying mile and flying kilometre records to 75.95mph and 80.47mph respectively. "On the same day DR O'Donovan, on a 3½hp Norton, carried off no less than nine records in classes C (500cc solo) D (750cc solo), and E (1,000cc solo)." Wizard's speeds ranged from 54.27mph (12 hours) to 55.30mph (eight hours).



"HR Davies, who, on a 2½hp overhead valve AJS, broke records last week. (Right) DR O'Donovan (Norton) starting off after filling up with petrol during his twelve hour record-breaking ride."

"UNFORTUNATELY, WITHIN ITS IMMEDIATE vicinity, Coventry has not a single gradient which would trouble the most indifferently tuned solo machine. As a consequence, therefore, the Coventry and Warwickshire MC cannot count upon hill-climbing failures as an eliminating factor in the process of finding a winner in its trials. During the closing run, which took place on Saturday afternoon, the forty-odd starters found that, despite the mild and sunny atmospheric conditions, their troubles were destined to be watery ones. Scarcely had the engines time to get warm when a turn off the main road down a narrow lane brought the riders headlong into six or eight inches of water. Of those who took the water there were one or two who entered it too fast and had anxious moments, as their expressions of pained surprise indicated, but, nevertheless, they recovered in time to change down and make a safe crossing; in this category were the Rev JM Philpott (2½hp Wilkin) and E Marshall (4½hp Humber), but C Massey (2½hp Hoskison) was unable to change into low before his engine stopped. Some of the riders, especially the sidecar men, adopted weird attitudes in the endeavour to protect their lower limbs from a wetting, but none of the soloists attempted to ride with their feet upon the tank. One or two, however, found a lodgement for their toes on the front down tube of the frame, and so kept their boots above water. Perhaps the most spectacular showing, however, was that of SR Philpot, who gripped the tank of his 2½hp Douglas high up with his knees, and spread out his feet in the air well above the spray, steering a perfectly steady course withal. The same cannot be said of all. Another smaller splash was crossed, then a splendid main road run to Kenilworth followed, where the ford near the Castle was crossed (by those whose luck held out!). Only a dozen yards at most, and barely 6in deep, this obstacle caused innumerable failures. Few got over under power, suffering either from 'shorted' sparking plugs or from excess of back pressure owing to the exhaust pipe being submerged. One rider, WG Blatch (7hp Rudge sc), made provision against wetting his feet by having a length of rope secured to the front forks. The moment his belt commenced to slip his passenger hurled the end of the rope in to land and spectators towed the outfit across with its engine still running. After this point some twelve miles of narrow lanes, very greasy in places and containing another brook to cross, brought the competitors, sadly thinned in numbers, to

the starting point for a second circuit of the same course. Here some of those I who had a clean sheet previously found, that their luck had deserted them, while others, profiting by previous experience, went warily, and survived for the final section—a main road to Coleshill, where the eighteen finishers took tea. The results were: Class 1 (solo motor cycles), EA Barnett (3½hp Invicta); time error, 3min 36sec. Class 2 (sidecar machines), E Astley (5-6hp Rover sc); time error, 8min 10sec. Their awards were a rose-bowl and a cup respectively, presented by the Cycle and Motor Cycle Manufacturers' and Traders' Union.



"The trial savoured more of an aquatic carnival than a reliability test, since the riders took to the water eight times. E Marshall (4½hp Humber) negotiating the stream at Canley. (Right) Four watersplashes were included in the Coventry and Warwickshire MC trial, and these had to be taken twice on the circuit. The illustration depicts E Astley (5-6hp Rover sc) negotiating the Kenilworth ford."

"NEXT YEAR MOTOR CYCLES of under 200lb in weight will be taxed 30s, over 200lb 60s, and sidecars 20s extra. Everything else being equal the difference in a few pounds may influence the purchase of a new machine, therefore it behoves makers to give the accurate weight of their productions. Approximate weights serve no purpose, but apart from the question of taxation it is desirable that every maker should take care to include weight in detailing his specifications."

"THE LINE OF DEMARCACTION between the light-weight and the heavier types of motor cycles has always been a matter of opinion. Hitherto, engine size has been the deciding point, and generally about 350cc capacity has been regarded as the limit of the lightweight. Although engine capacity has some bearing upon type, it cannot be said to be an essential factor, as a machine weighing 190lb may have an engine of 1,000cc, while the engine of another weighing 300lb may be only 350cc; yet, according to past and present ideas of lightweights, the heavier machine would be a lightweight and the lighter one would not...as, next year, taxation will automatically divide motor cycles into two classes, the line made by the Government, at the suggestion of our governing bodies, should be used to determine the limits of a lightweight. If this ruling for taxation be accepted by the trade and riders as showing the line of demarcation, then only those machines which weigh under 200lb should be termed lightweights, irrespective of their engine capacity. At the present time there is no authentic list of weights in existence, as our efforts to obtain correct figures have been confined to those machines we have weighed ourselves. Hitherto makers have quoted only approximate weights, but the new taxation should

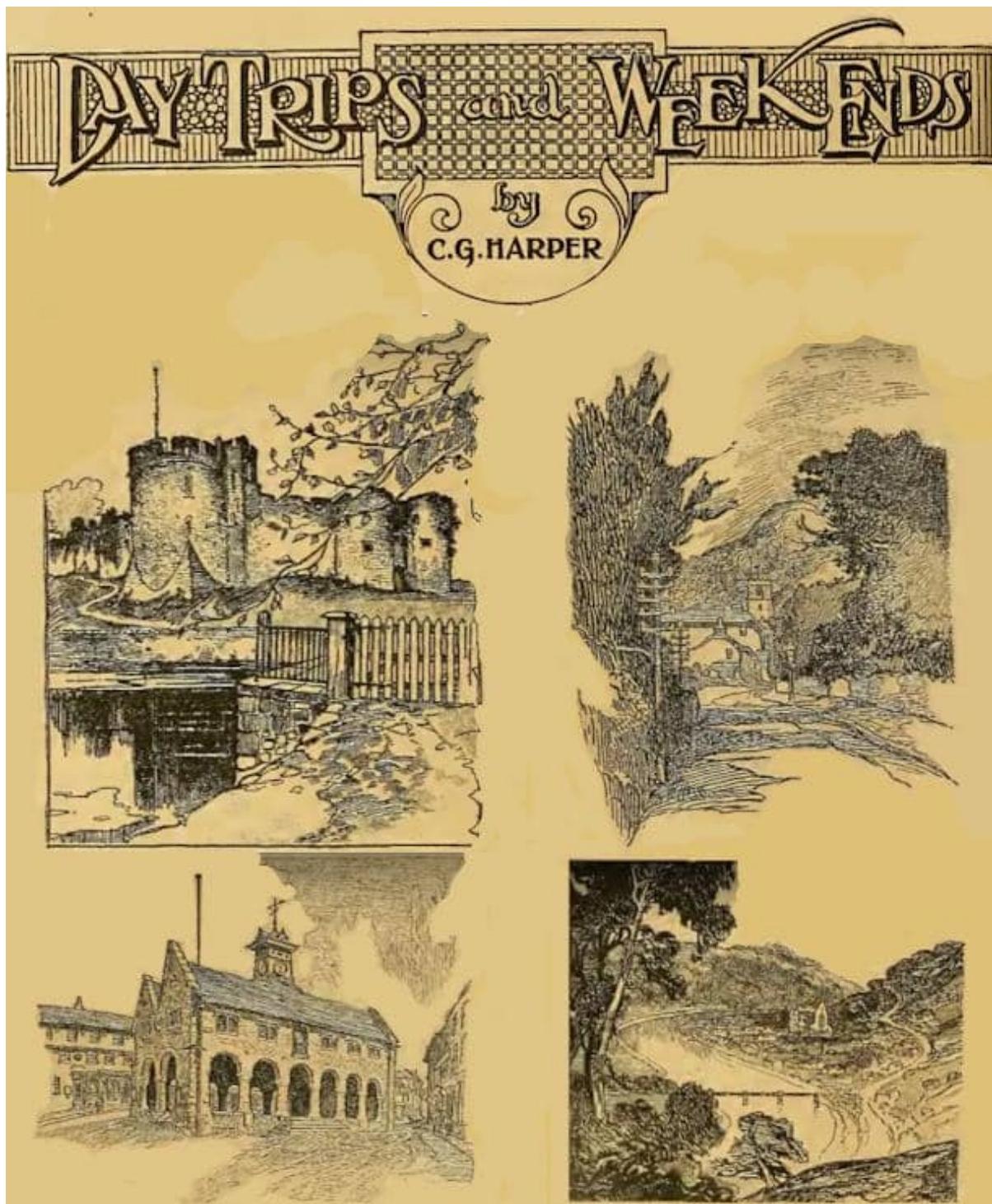
induce catalogue compilers to be accurate on this point, as, in cases where a machine is on the border line, it will make a difference of thirty shillings in taxation."



"One of the steepest grades (1 in 2% maximum) in England. It is the 'old' road to the Wyche cutting at Malvern, and the machine making the ascent is the 3hp, 348cc Ivy two-stroke sidecar, ridden by O Newman, which completed fifteen non-stop climbs under ACU observation last Thursday." Two ascents were then made three-up.

THE FOLLOWING TRAVEL GUIDE is at best peripheral to the unrolling story of the motor cycle. Excerpts are included here because it's a delightful read and the line drawings, despite the marked lack of bikes, were too good to leave out. "Chepstow to Ross, Hereford and Abergavenny: Describing the Valley of the Wye and Some of its Beauty Spots. This is a route of magnificent scenery and roads chiefly of great excellence: a wonderful combination greatly to be desired and not often experienced. Chepstow stands beside the river Wye, where it broadens out, presently to meet the Severn. Cresting the limestone cliffs rising from the river runs the long length of the ruined castle whose last fight was in 1648. By a picturesque stroke of poetic justice, the regicide, Henry Marten, was at the Restoration imprisoned in one of the ruined towers, and there he died in 1680. But we need not pity him. for that 'imprisonment' was an easy one, and he visited and dined out with the Welsh squires at neighbouring Piercefield pretty much as he pleased...The Wye so completely doubles upon its own course that it forms almost an island. It is the peninsula of Llaneau with a ruined chapel. The grey ruins of Tintagel Abbey presently show ghostlike, among the orchards beneath the road...we cross the ancient bridge at Wilton, with its pillar sun dial, and come uphill into Ross, famous for John Kyrle, the bachelor benefactor of this, his adopted town, born 1637, died 1724. The house he lived in faces the quaint old Market House. He looked from his window's upon the Market House day by day, and, being an ardent Royalist, he caused to be carved on those old walls a curious device yet to be seen there, formed by the letters 'F' and 'C' impaling a heart, and signifying 'Faithful to Charles in Heart'. Such were the simple conceits of bygone ages...Hereford is a cheerful and bustling city, very busy in the agricultural way, especially in cattle, and very much more modern in general than would be expected...The most curious thing in it is a map of the world, a fearful and wonderful, if at the same time, an extraordinarily incomplete world. Hereford, be it said, is one of those trebly-blest cities that have no tramways...Finally, past Mardy, comes Abergavenny, busy and prosperous, with its battered old Priory Church and collection of much mutilated effigies, suffering from the surgical operations and amputations inflicted in the past by fanatics or by the merely mischievous. And that is what the power and state of the ancient Lords Marchers, the fierce de Braoses and others, have come to: an array of broken-nosed, and some

armless and legless effigies. Soon we come to Raglan Village, with the massive and stately ruins of the castle on the left: that fortress residence of the old Marquis of Worcester, who, at the age of eighty-four, defended it in the interests of the Royalists in the long siege of 1646, and finally surrendered only to starvation, marching out with all the honours of war, as so gallant a gentleman should. Through Mitchell Troy village and then past the park of Troy House, until recent years a seat of the Duke of Beaufort, we shortly come into Monmouth across the ancient Monno Bridge, and under the archway of its defensible gate. The distance covered on this route is 8½ miles."

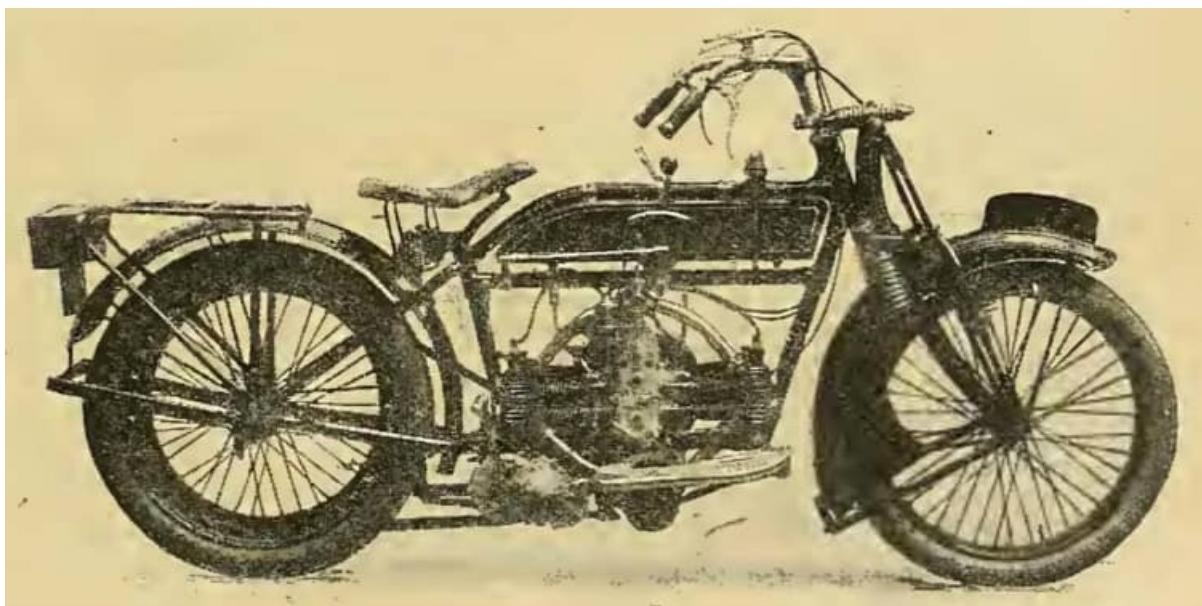


"Chepstow Castle, a stronghold of olden days. Tintern Abbey is one of the most beautiful and

familiar sights of the Wye Valley. The quaint old Market House at Ross. A picturesque spot near Abergavenny on the Monmouth road."

IXION POSED A QUESTION: "Trials for Man or Machine? Veterans will remember that pushbicycle competitions went through three stages. Stage 1.—Competitions tested the bicycles, advertised the makers, and provided sport for riders. Stage 2.—Competitions advertised the makers and provided sport for the riders. Stage 3.—Competitions provided sport for the riders. I have long ceased to take a cycling journal, but I imagine that Stage 3 still persists, and that the North Road CC and other clubs still organise competitions, in which only a very small and very enthusiastic minority of push-cyclists are seriously interested. Ultimately motor cycle trials will reach the same phase. At present we are still in Stage 1. The ACU Six Days exist to inform the general public about the capacity of current machines; and I see no reason why the one-day trials should not be encouraged to provide all possible sport for us maniacs who support them. It is sad to think that a day must come when the man who tries to win medals on a motor cycle will be regarded with the same genial contempt by the general public as the people who lie awake at nights scheming how to put an extra mm on to the bore of a prize leek."

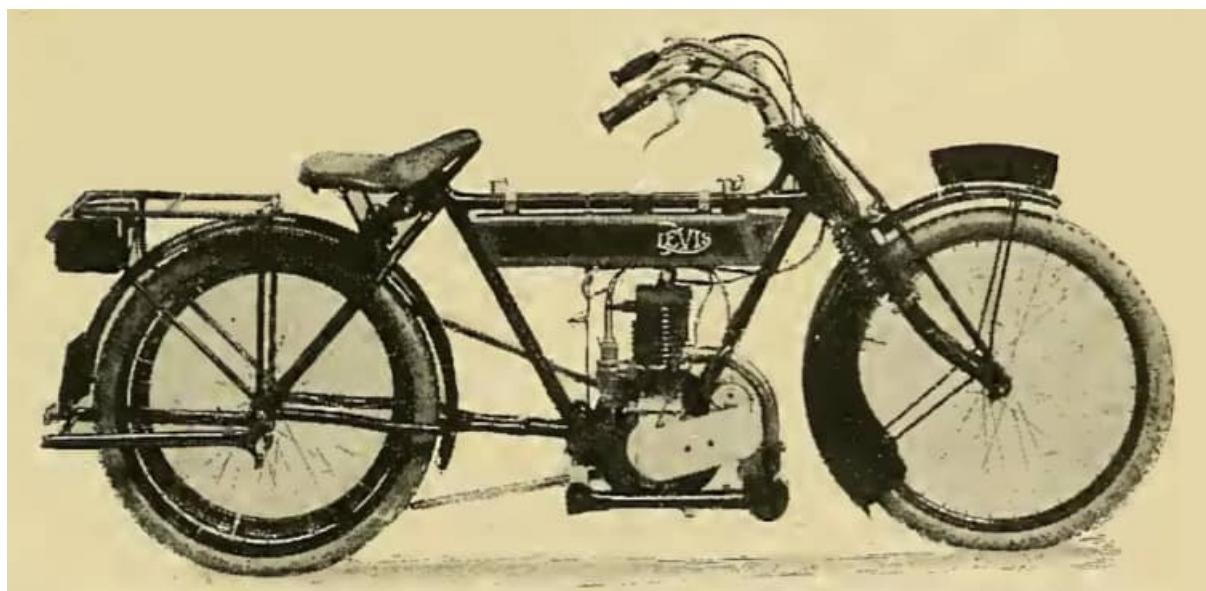
MINISTER OF TRANSPORT (AND WARTIME First Lord of the Admiralty) Sir Eric Geddes planned to require motor cyclists to make hand signals. Ixion was not impressed: "I should say the most obvious point about compulsory road signals is that when the roads are greasy not one rider out of every two dare take a hand off his bar to signal...There are thousands of riders who often find themselves in the saddle under conditions where they would rather risk a prosecution than steer one-handed, even for half a second. I ride generally in all weathers, but I am not ashamed to confess that there are certain traffic centres at certain corners where I need both hands if the surface is greasy. Let Sir Eric Geddes do a month on a heavy twin solo this winter before he enforces these signs on us. Why, there are times when I wait a mile or so to inject a pump of oil because I dare not let go."



"The 1921 Eysink, manufactured throughout at Amersfoort, Holland, and having a three-speed gear and cylinders of 68x70mm (254cc)."

"DINING OUT THE OTHER NIGHT," Ixion reported, "I experienced sensations analogous to those of speed wobble when I found myself placed next a gaitered prelate by a tactless hostess. I say

tactless, because motor cyclists are fundamentally godless, since our hobby turns us all into pessimistic materialists, whereas a bishop is—or should be—an optimistic spiritualist. Anyhow, whilst I desperately rummaged my memory for fragments of the thirty-nine articles, the jovial bishop opened the ball by remarking that he rode a baby Triumph. This put me at my ease, and when he mentioned that his diocese was in Central Africa, I foresaw copy, and began to neglect my soup. The next bombshell was that he infinitely preferred a push-bicycle. This was simply shocking! I reversed our respective roles, and called up all my reinforcements with the intention of making a convert. Let me confess at once that I failed...The right reverend gentleman explained that he had bought a Baby Triumph because he often tackled 300 mile jaunts through bad lion country, and that a lightweight was essential, as a river ford often ended in a vertical bank twenty feet high, up which one might have to hew steps...One has to carry weapons, tent, fuel, oil, and food, as well the special episcopal impedimenta (he did not specify what these were, but unless the Ingoldsby Legends are out of date, let us put it at bell, book and candle)...So this peculiar branch of the Overseas market demands a bantamweight machine, capable of transporting, say, a couple of cwt of luggage, and absolutely proof against serious breakdowns. I was unable to recommend an ideal mount for such conditions, and I did not blame his lordship in reserving his Baby Triumph for use on the one good road in his outlandish diocese. My natural shyness prevented me from suggesting that he was sure to win a gold medal if he entered in the Six Days."



"Hitherto the Levis has appealed mainly to the novice and the weaker sex; and, although an extraordinarily capable little machine, its 211cc engine and single gear do not make up the specification of a 'road-eater's mount'. But the 2½hp 247cc model which, amongst other things, gained *The Motor Cycle Cup* in this year's TT, is a different proposition; and all who love the light, fast, go-anywhere type, will welcome the news that Messrs Butterfields, of Stechford, Birmingham, are marketing what is practically a replica of RO Clark's Isle of Man model. Ultimately the TT Levis will have a three-speed gear box and clutch of Levis manufacture and design."

THE ACU TESTED A DEGORY N-jet carb fitted to a 1919 WD 2¾hp Douglas on a non-stop run from Hounslow to Reading and back. It averaged 23.5mph over the 58½ miles and achieved 165.6mpg. The Duggie was then taken to Douglas where it did 48.6mph.

"YELLOW WHEELS ARE BECOMING quite the vogue in American motor cycles, and there is something in their favour. Yellow does not show up the dirt so much as black."

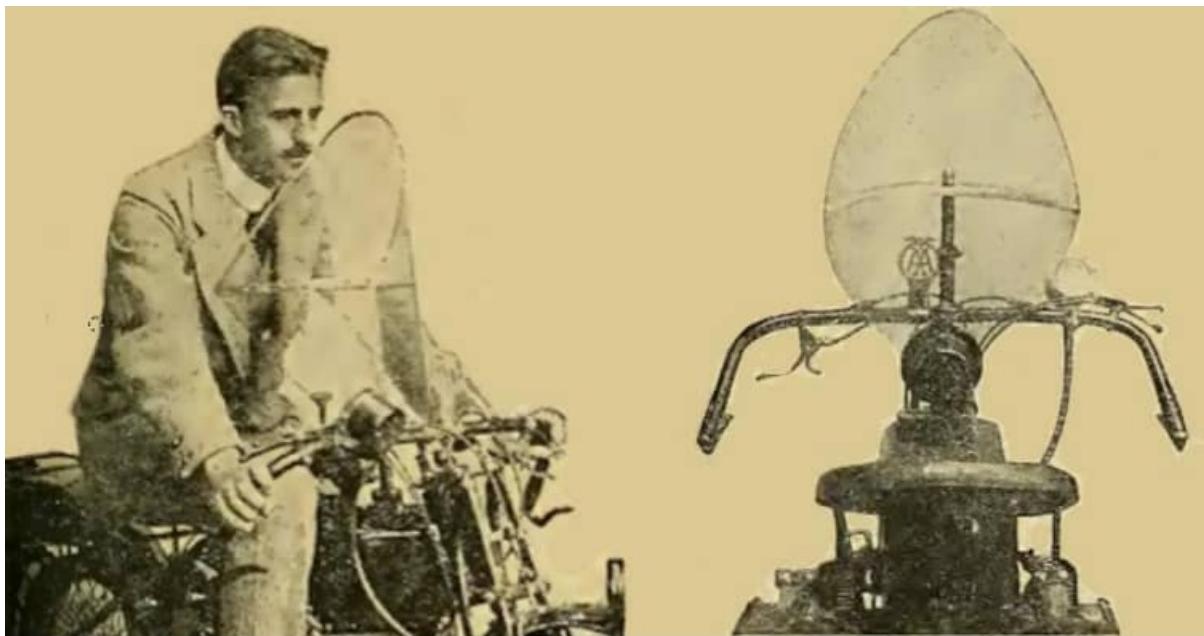
"CARRIERS ARE GRADUALLY BEING dropped by makers of American motor cycles. This, we understood, is due to the popularity of pillion seats with footrests, which are fitted by the owner who 'scraps' the standard carrier."

"TO-MORROW'S ISSUE OF *THE AUTOCAR* marks the completion of its twenty-five years' unbroken run as the leading journal devoted to the automobile. The largest, most successful, and having the largest circulation of the world's car journals, it is the parent of *The Motor Cycle*, which was born in 1903. Surely the offspring has a right to wish its progenitor many happy returns of the day even in journalism? We do so with every sincerity, knowing how the example set by the parent journal has assisted to make *The Motor Cycle* what it is to-day."

"THE HENDERSON, BY REASON of its large, four-cylinder engine, is already probably the nearest approach to the much-discussed, if rather mythical, two-wheeled car. However, Mr. Ingvasson, of Helsingborg, Sweden, has gone further to making the statement a fact. The photographs show a combined wind and mudshield which he has designed for his mount, and which appears to give ample protection from the elements. The upper, or 'dash', part of the shield may be raised or lowered, while the front part forms a roomy compartment for storing spares or supplies. Mr. Ingvasson states that the cooling is more efficient than before, as the wings on both sides of the front wheel direct the air forcibly against the cylinders. The machine can be upset without the screen touching the ground at any point."



"A Swedish reader's device for weatherproofing his Henderson."



The 'Still Wind Screen', made by WM Still & Sons on Hatton Garden, was claimed to offer "perfect protection to the driver, without in the slightest degree impairing the vision...note the unique shape, scientifically designed, giving perfect accessibility to all controls, and protection to the driver."

"TRUE TO HIS FIRST LOVE: Sir,—I have taken over, a new 8hp Rover light car and parted with my old 1913 P&M, but I find I cannot give up The Motor Cycle. My respects to 'Ixion', be he myth or flesh.

HGS, Carlisle."

"UNDER DIFFICULTIES: Sir,—I find every issue full of good things and thoroughly interesting—in fact, to enjoy motor cycling in the poorest spot on earth (the Persian Gulf) with no roads and no motor cycle, buy *The Motor Cycle*.

Jack, Persian Gulf."

"EVERY-DAY RIDERS' WANTS: Sir,—As a reader of your valuable paper for two years, may I give my opinion of motor cycles in general. I am a motor cyclist, but not an engineer, and so speak from the average cyclist's point of view. Present-day motor cycles have too small tanks; freak gears; under-sized wheels and tyres; bad appearance, although American machines are more compact; spring forks, which quickly develop sideplay and rattle; useless front brakes (an extra back brake is much preferable) poor controls often fitted as if an after-thought; and inadequate mudguard and fork clearance (with danger of torn covers). I consider that engines are very good; but I prefer plain bushes to ball bearings on account of the ease with which they may be replaced. The service of spares is disgusting. In Glasgow, recently, I was quite unable to obtain a spare valve for a well-known machine. No dealer should be an agent unless he carries a reasonable stock of spares. I pity the Colonials. In conclusion, my idea of the perfect specification is American frame, tank, wheels, and control; JAP engine; Sunbeam gear box (final drive on right side more accessible with sidecar); M-L magneto; and no spring frame. I suggest this motto to manufacturers, 'Look after the motor cyclist, and the bank balance will look after itself'.

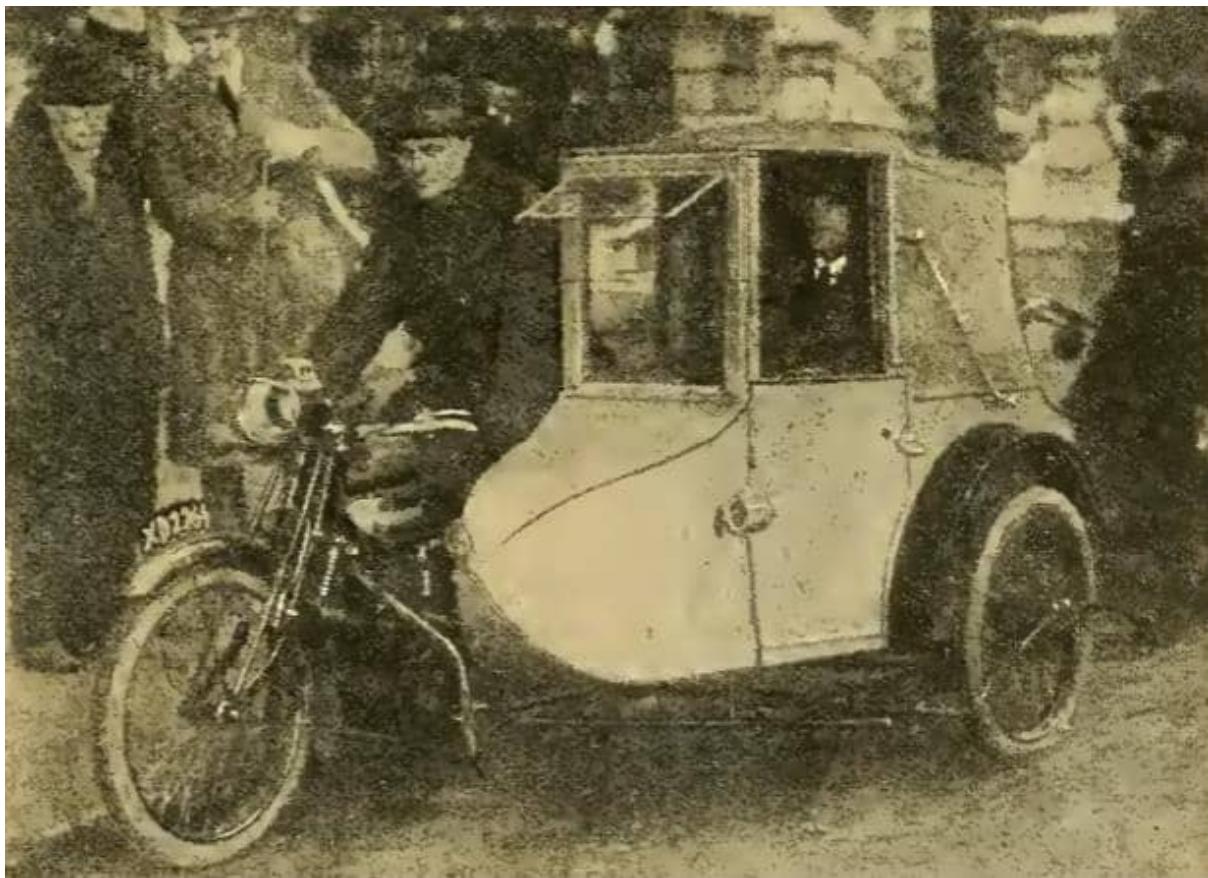
Fed Up And Disgusted."

"A GOOD SAMARITAN: Sir,—May I through the medium of your paper, express the gratitude of my brother and myself towards an unknown motor cyclist, who rendered us most valuable aid whilst on a journey to Cornwall. We were held up on a very desolate part of Dartmoor, with the magneto broken adrift, and unless help were forthcoming it looked like a night on the moor. The good Samaritan in question, after having left us, called at several places through which he passed, until he was able to send back from Princetown a car and mechanic, who repaired the damages sufficiently to enable us to reach a garage at Yelverton. Not only this, but in the kindness of his heart placed in the car two bottles of liquid refreshment to keep our spirits up. Could a sportsman do more? I would like to take this opportunity of placing on record our appreciation of his help and courtesy, and, not knowing his name, hope that this letter will reach his eye.

CC, Bromley, Kent.]"

"A LONG TOUR: Sir,—I took delivery of a new 3½hp Sunbeam in June this year, and about three weeks later started my holiday in Scotland. Beginning at Bristol I made Chester the first day Windermere was my second stop, about ten miles from which I changed gear for the first time. After that my route was Ullswater (including a visit to Kirkstone Pass, which was accomplished in pouring rain), Penrith, Carlisle, Gretna, Dumfries, Ayr, Glasgow, Oban, Fort William, Fort Augustus, Inverness, Nairn, Elgin, Aberdeen, and Edinburgh, through Yorkshire, and on to London, back to Bristol via Dorset and Somerset, a distance of something like 2,500-3,000 miles. About 1,000 were over Scottish roads, which I will not describe, as anyone who has been there will not care to be reminded of them. The only place the toolbags were opened was near Ballachulish, where I had a puncture, otherwise the machine was not touched, and it is just as well it did not require adjustment, as I am an absolute novice, and have only been riding a year or so.

Sunbeam, Bristol."



"The metropolis has at last recognised the commercial value of the sidecar as a passenger-carrying proposition. This is the first taxi sidecar passed by the licensing authorities at Scotland Yard."

"PETROL CONSUMPTION TESTS: Sir,—I am encouraged by your correspondents who all get over two hundred miles to the gallon to do two things: First, to ask them why they always specify one single occasion on which they do this, as if the matter were a feat of endurance, only to be undertaken with due preparation; and, secondly, to give my own experiences: Normal mileage when touring—90mpg. When I left the drain cock on—4mpg (before I found this out). Driving in Essex (fifty-six right-angle bends in flat country in ten miles)—Oh say about fifteen to the gallon and a new clutch lining. Proceeding (by train) to Birmingham—Consumption, nil. My best show was when I boarded the Isle of Wight ferry with no petrol in my tank (I had to satisfy the authorities I had none before I could board the lugger). Then, when I disembarked at the other side, I drove fifteen miles with three lunch stops without refilling. As this may be a record, perhaps I had better say I used a 1902 Minerva, flat tyres, round belt, tube ignition made by my plumber (Mr Roarer, a very estimable man), American petrol, American oil, and American hot air inlet heater. Usual disclaimer, intensified as regards last three items...A friend has just called to say that while employed as Deputy Acting Inspector of False Teeth in the Great War, he drove his machine at a cost of nothing at all for a distance of some 10,000 miles. And got the OBE, so there now.

HK601, Gidea Park."

"PRINCE LOSES HIS MOTOR CYCLE: The stealing of motor bicycles is not confined to this country only. The other day HRH Prince Olaf left his machine outside the Theatre Restaurant, Christiania, when it was promptly stolen. It bore the registration mark A45." Olaf went on to become King of Norway.

"AN AGREEMENT HAS BEEN COMPLETED between the Auto-Cycle Union and the Motor Cycle Club of New South Wales, by which the latter institution is recognised as the governing body of motor cycling in the State named...Members of the New South Wales MCC may display the ACU badge. The bodies will mutually recognise the registration, suspension, and disqualification of licensed competition riders, and the benefits of membership of each body will be mutually enjoyed by members temporarily resident in each other's country."

"THE RAC RECENTLY MADE a test of inner tubes made by Puncture-proofed Tubes, Ltd. Fitted to a heavy car, which was first required to cover 41.13 miles at 42.5mph, the tubes were each punctured in from six to eleven places, and the car then covered a similar distance, at the conclusion of which the pressures proved to have lost from 1-2psi only."

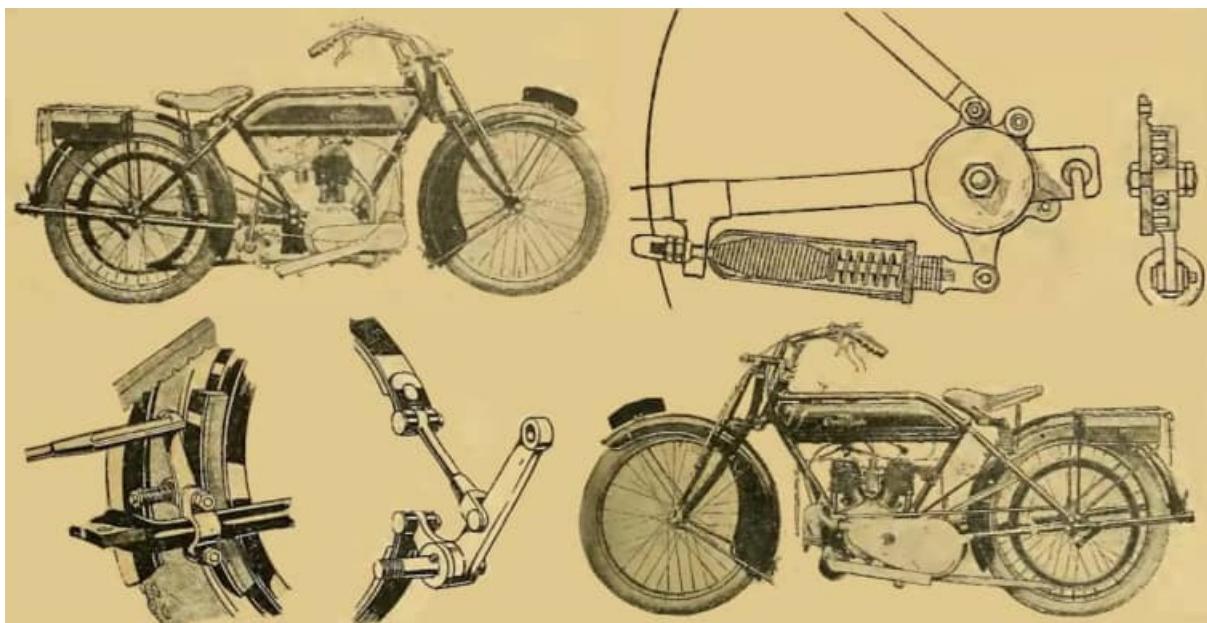
"COMPETITIONS IN JAPAN: At the moment of going to press we hear that a British machine—a Triumph—has won the championship of Japan."



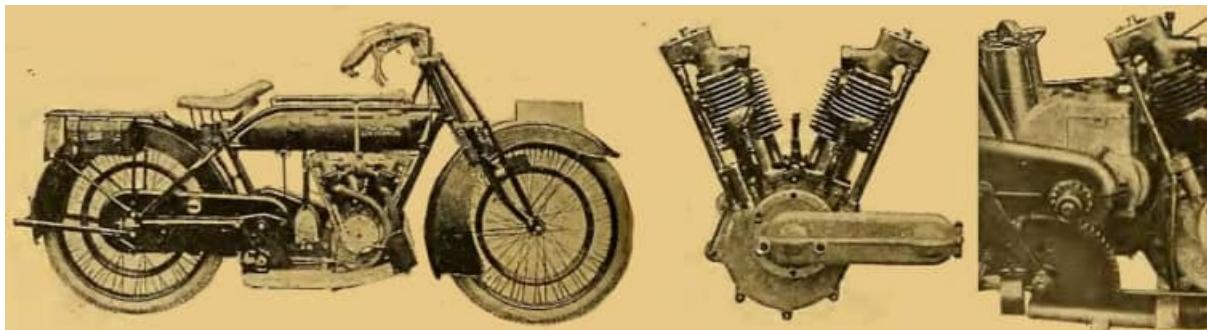
"Geoffrey Hill, a Northern competition rider, sends the above photograph with the laconic message, 'Nearly 'pegged out' to-day on this Pass. A monk of St Bernard found me, and I am staying at the monastery shown. 'Hill has been travelling through Holland, Belgium, France, and Switzerland, and was 8.000ft up on one of the passes with his Scott when the rarefied air affected the running of his machine."

COVENTRY EAGLE EXPANDED ITS RANGE ready for the 1921 season. The 2½hp (Villiers-powered), 2¾hp (JAP-powered) and 3½hp (King Dick-powered) models were little changed apart from a revised braking system; they were joined by a dual-purpose solo/sidecar model with a 6hp 654cc JAP V-twin. It also sported Brampton Biflex forks, "excellent mudguards, and sensible footboards and the general appearance is extremely pleasing...A remarkably simple form of spring frame will be offered as an alternative to the rigid frame on all the larger Coventry Eagle models. Carried on the rear portion of the frame is a pair of substantial bell cranks mounted on ball bearings. The levers carrying the rear wheel normally form extensions to the chain stays, while the remaining levers of the cranks hang downwards in an approximately vertical position. These vertical levers are attached to an enclosed tension spring anchored at the front to the foremost part of the chain stays, and two 'buffer' springs are interposed—one inside the spring

case and one outside. One or other of these buffers is always in compression and consequently helps to damp any violent shocks."



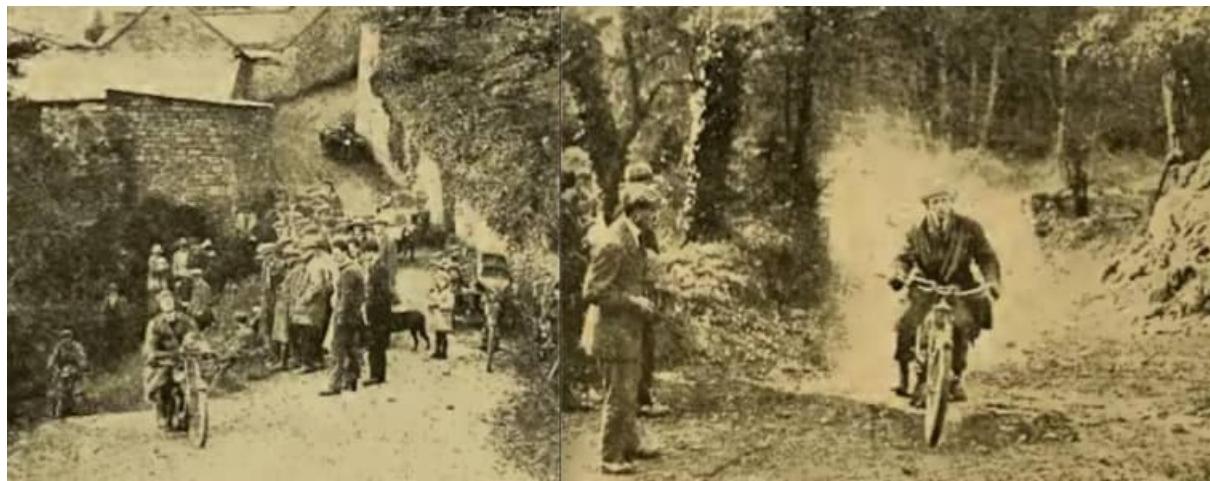
"The 3½hp solo mount, fitted with King Dick engine and three-speed Sturmey-Archer gear box. The rear suspension system of the Coventry Eagle. The new internal V brake applied to all models. Two brakes, both acting on the rear wheel, are a feature of the new design. The sketch shows the toggle mechanism of the new band brake. The 5-6hp (654cc) Coventry Eagle, which answers admirably as a double-purpose mount."



Lea-Francis had enjoyed great success with its 2-speeder, powered by a 3½hp MAG V-twin. To build on that success it added a dual-purpose model with the 5hp MAG engine (centre) and upgraded the transmission with a new three-speed box (right).

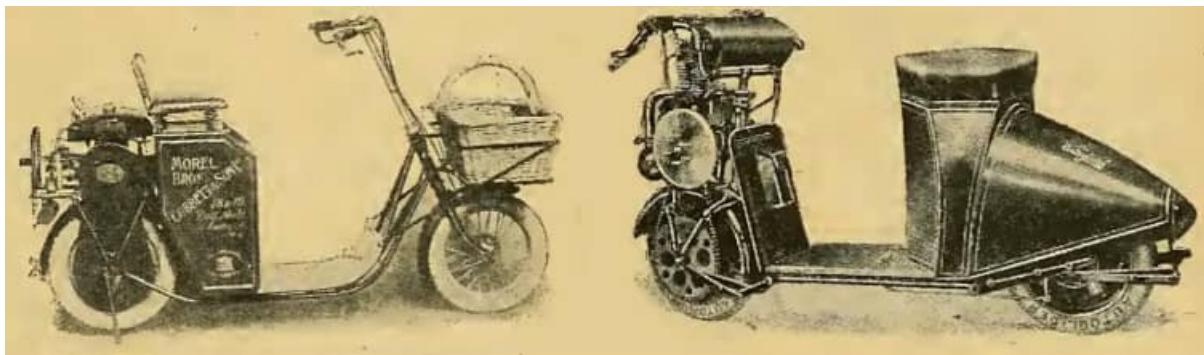
"THE WESTERN CENTRE OF THE ACU was inaugurated on October 1st, and with praiseworthy promptitude held its first inter-club competition on Saturday last (November 6th). A short course of 15.8 miles was selected by officials of the Stroud MCC, and it included the three hills known as Quarhouse Lane, Bussage, and The Knapp...These three hills are very steep, and two of them are crossed by difficult projecting gulleys, but they, are eminently fair. Four machines constituted a team, made up of one passenger and three solo mounts. Three circuits of the course had to be covered, and in view of its difficult nature the competitors were given a choice of speed from 15 to 20mph. As events proved, not a single sidecar machine survived the first circuit, while the only soloists who entered the second circuit were four in number, and of these only two carried on to the third circuit, where both met their Waterloo early, one skidding and the other running out of petrol. The fun commenced at Bussage, about three miles from the

start. Approached by a somewhat loose and muddy lane, the hill ascends steeply and straight for some distance, after which comes a slightly easier stretch, in turn giving place to a few hundred yards of gradient, culminating in a section of quite 1 in 4. The whole surface of the hill is of a hard, stony nature, and, as it had been covered during the morning with hoar frost, the growing power of the sun converted this into a thin coating of, moisture which became a film of slime...In all, this hill accounted for the entire Stourbridge team, three of the. Worcester, two each of the Bristol and Cheltenham, and. one of the Stroud team." A team of four who completed the course would have covered 189.6 miles between them. In the event the Stroud team, no doubt helped by local knowledge, managed 90.5 miles to win the event. Runner up was the Bristol MCC (40.3 miles) followed by Worcester (27.4 miles), Cheltenham (19.2 miles) and, in fifth place, Stourbridge, whose four riders managed exactly 2.9 miles each to log a total of 1.6 miles.



"The first Western Centre ACU Team Trial brought many spectators to the observed hills: the illustration shows CH Dickins, (3½hp Dene), of the Cheltenham MCC, climbing Quarhouse Lane, near Stroud. (Right) At the foot of Bussage Hill. L Ratcliffe (4hp Triumph), who made a fine performance until he ran out of petrol at this point on the last circuit: he was in the winning team (Stroud MCC)."

"OF ALL THE MANY TYPES of motor cycle at present in existence, the lightweight has perhaps the rosiest future. So far an element of sport has pervaded the atmosphere which surrounds the motor cycling fraternity, but, though it is neither desirable nor likely that this feeling should drop out, the time will come, and indeed is almost with us, when a far more commercial spirit will prevail. The motor cycle has already proved its reliability in daily use, and the need for a multitude of reliability trials to prove this no longer exists. The motor cycle, therefore, may soon become the standard means of locomotion for all who can afford the necessary outlay. It behoves us to study the requirements of the public who will form the largest proportion of buyers in the near future. Of what is this public composed? Chiefly of city workers, who by choice or necessity live some distance from their work. Such people do not require fast heavy machines, nor do the majority need passenger accommodation. A light, reliable machine, capable of a maximum speed of 30mph, would satisfy their requirements, but, above all, it must be quiet, and must protect the rider from mud splashes and oil."



"The light delivery Skootamota which has ample goods accommodation. (Right) A sporting scooter—the Autoglider, for which a maximum speed of 50mph is claimed."

"SOME MONTHS AGO," IXION reported, "I ran into Granville Bradshaw, whose fertile brain was being tugged two ways. Apparently his tail lamp had dropped off its bracket, and been rolled out flat by a steam lorry; moreover, he had been charged some £2 for a new one. So one hemisphere of his brain was busy inventing a mass-production tail lamp, which would merely dent the tyre or buckle the wheel of any motor lorry sufficiently misguided to run over it. The other hemisphere of his cerebellum was employed on a new engine, of which he did not display the drawings: but I gathered it was oil-cooled, and had the cylinders neatly concealed inside the crank case. In fact, my feeble brain conjured up a Heath Robinson nightmare of an overhead crankshaft. At the Car Show I ran into FW Barnes. "What's the latest Zenith stunt?" I inquired. He hinted that the latest Bradshaw engine might be seen on his stand, and that Emerson might be exploiting its track capacities before long."

"MOTOR CYCLE FOX HUNT: Motor cyclists are being invited to a fox hunt being arranged at Salt Box Hill, Cudham, and the event promises to be a novelty. Some years ago a Bradbury rider took part in a fox hunt in the same district, and was present at the death. The coverts are in the chalk hills of Cudham, and depredations by the foxes are becoming serious."



"Hunting has started in earnest, and at many meets the motor cycle has been in evidence. Here is shown a rider of a Junior Triumph enquiring of the huntsman where he is going to 'draw'."

"MOTOR CYCLING IN IRELAND: A press photographer who often officiates, for The Motor Cycle, is at present in Ireland, and from his accounts of experiences during the present crisis, there are more pleasant places for motor cyclists than the Emerald Isle. As the railway service is slowly being strangled, the motor vehicle is the only convenient means of getting about; and a few days ago, in company with several other pressmen, our correspondent states he was held up at the point of a revolver, first by the RIC and then by Republican Volunteers."

IXIONS WAXED POETICAL. ENJOY. "Cold fingers certainly. A little blue-nosed, maybe. A certain restraint in corner work, thanks to the frequent patches of grease under the trees or where the road chanced to run sunless between high banks for a little way. But nevertheless quite the jolliest ride of the entire year. The foliage, instead of being a monotonous green, was splashed with every tint in nature's palette—quiet primrose, blazing orange, sedate russet, brilliant crimson, grey, brown, purple—what you will; maybe one tree with just a few palest yellow leaves still unfallen silhouetted against an evergreen cypress, so green that it was almost black: then a crazy chaos of orange, and green and mauve in giant splashes; then a tall, graceful leafless monster with silver bark clean cut against a lofty bank of vivid moss or fallen leaves, or fine needles. Just enough 'bite' in the air to make you hungry and a country inn at the end of the run."



"Freak hill-climbing in California: An American X on Capistrano Hill. Observe the large rear sprocket and the tractor bands on the rear tyre. Both British and Americans delight in hill-climbing, but how different their conception of this particular sport."

"HAND SIGNALS ON GREASY ROADS: Sir,—I am very interested to see Ixion's remarks with regard to hand signals whilst riding on greasy or wet roads. It is an important question, and one which, personally, I greatly appreciate, as indeed must most other practical motor cyclists who have given the matter any thought. I am a daily and all-weather solo rider (Douglas 2½hp) from Staines to Kew Bridge via Hounslow, Isleworth, and Brentford (which is a terribly trying journey on a greasy day and I certainly entirely agree with Ixion that it is impossible on wet wood block roads (and tramlines) to move a hand from the bars for an instant in order to signal to other traffic without very grave risk of a bad skid or sideslip. If signals to other traffic are made compulsory, some easily operated signalling device worked from the bars will be essential. Incidentally, can Ixion, or any other old timers, give any good hints for the prevention of skidding on greasy wood block roads or wet tramlines? These would be appreciated by

Duggie, Egham.

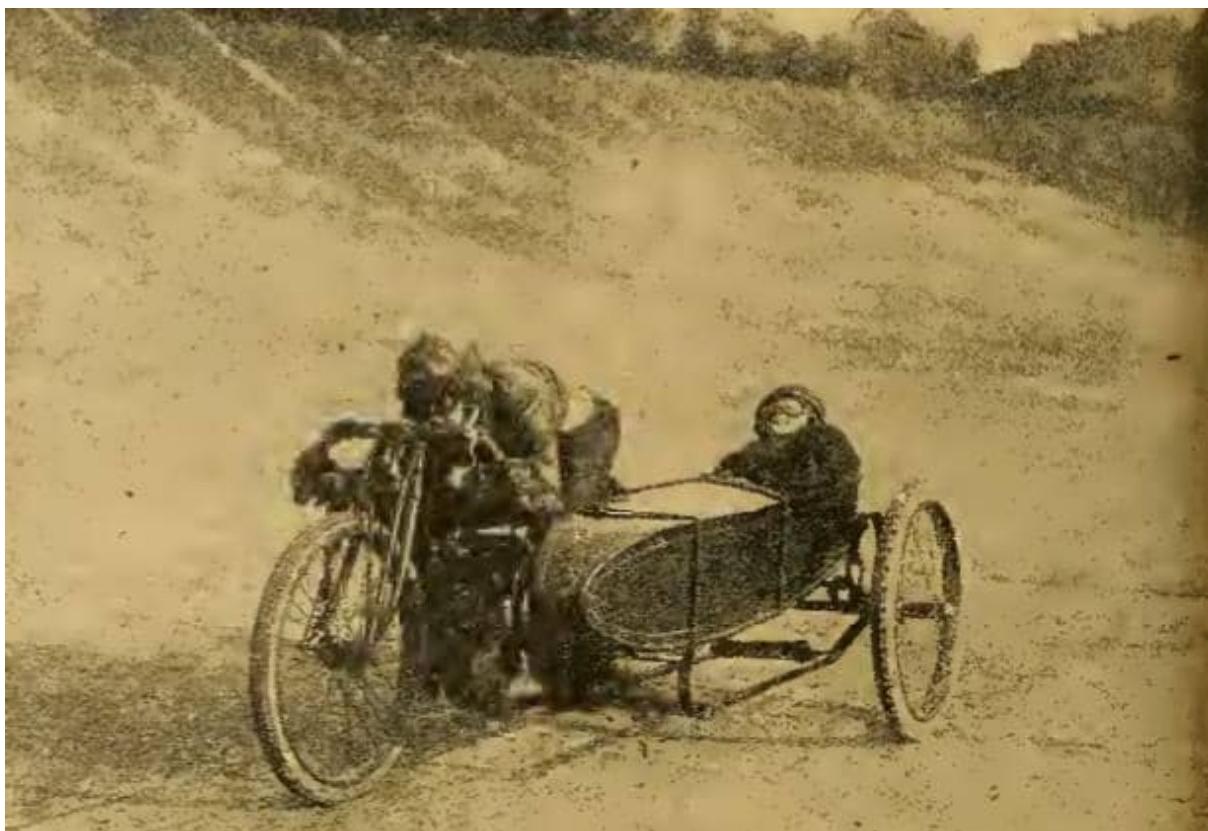
"SIR,—I ENCLOSURE A PRINT of a miniature motor cycle which I finished in February last. I have covered about 1,200 miles, and it has given excellent results. The design is original, and a sound engineering proposition (I have been managing engineering works over twenty years). Details might be of interest to some of your readers who are looking for a job during the winter months. The frame is built up of light steel channel and angle sections bolted together; the only brazing about it is the usual type of cycle fork crown. Wheels, 20×1¾in; wheelbase, 4ft; height, saddle to ground, 27in (adjustable); Brooks B130 saddle; engine, 1hp Auto-Wheel, altered to ½in V-belt

drive; lubrication, sight feed drip regulated by cock lbelow small tank; minimum and maximum speeds, 3-24mph; petrol consumption, 140mpg; total weight, tanks full ($\frac{1}{2}$ gallon petrol, 1 pint oil), 65lb. It can be dismantled and packed in a box 26in square, and reassembled in 20 minutes.

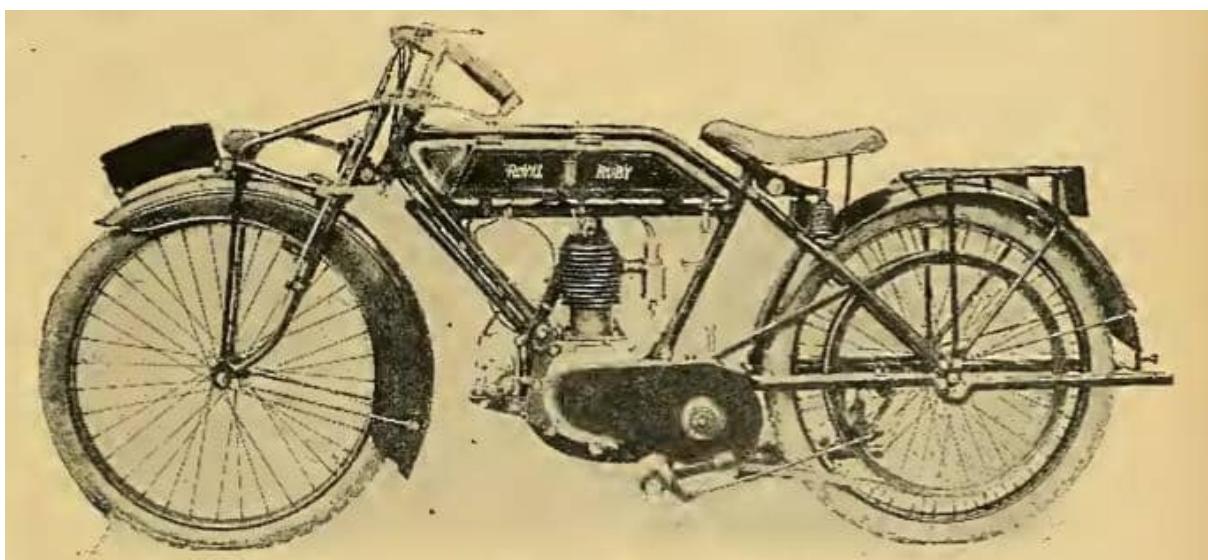
MAC."



"A neat little machine
constructed in the spare time of one of our readers. (See letter from 'Mac')."

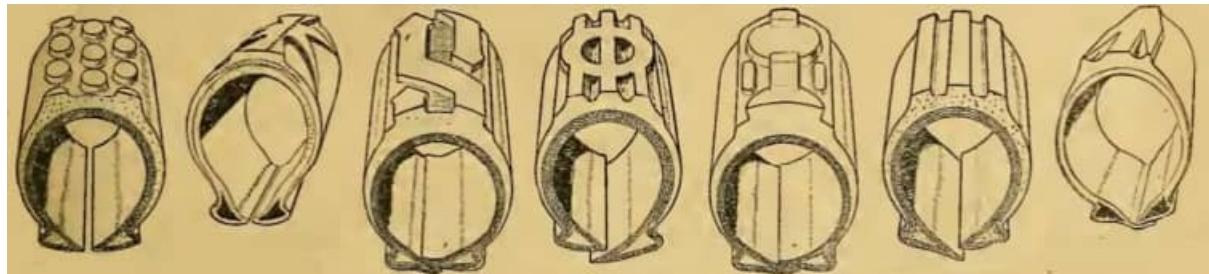


Riding A 997cc Indian Powerplus combo at Brooklands Bert Le Vack became the first sidecar pilot to cover 100 miles in less than 100 minutes. While he was at it he set world records for the flying kilometre (29sec/77.14mph) and flying mile (48.4sec/74.38mph), riding on to set five, 10, 50 and 100-mile records. The name of the hero in the sidecar was not recorded. Sans sidecar Le Vack snatched Charlie Collier's flying-start mile record, cutting Charlie's time from 39.40sec to 37.8sec, raising the record speed from 91.37mph to 95.24mph. Towards the end of the year he started work at Indian's London Depot where he developed the eight valve Indian engine.

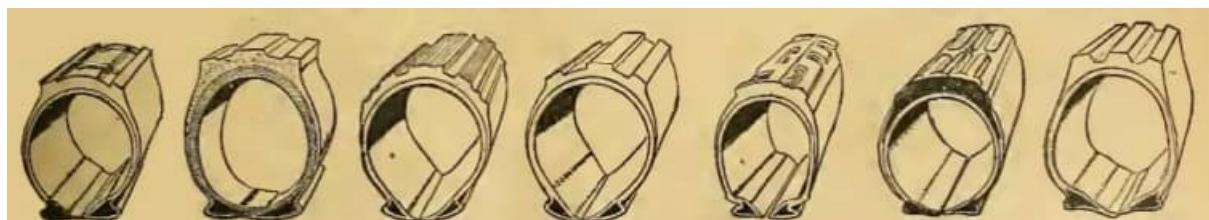


Royal Ruby catered for sporting types with a stripped down version of its 3hp/two-speed model. Rear suspension was replaced with a rigid frame; running boards were replaced with footrests; "semi-TT" handlebars were available as an option.

"THE NUMBER OF MAKES, types, and patterns of outer covers to be seen at the 1920 Motor Cycle Show will be considerable, and a study of them will reveal the ingenuity displayed by many of the designers in attempting to obtain an effective non-skid pattern. Of late years considerable improvement has been effected in tyre construction, with the result that better wearing qualities have been obtained, and naturally a greater freedom from punctures."



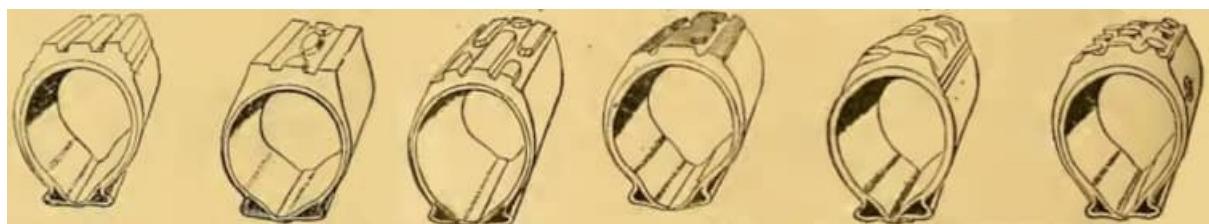
"Dunlop rubber-studded, Clincher 'Cross', Macintosh, Hutchinson, Kempshall anti-skid, grooved tread Midland, Moseley heavy arrow."



"John Bull cross-grove, Thames heavy cover, Avon extra-heavy three-ribbed, Bates, Goodrich safety tread, Moseley, three-ribbed."



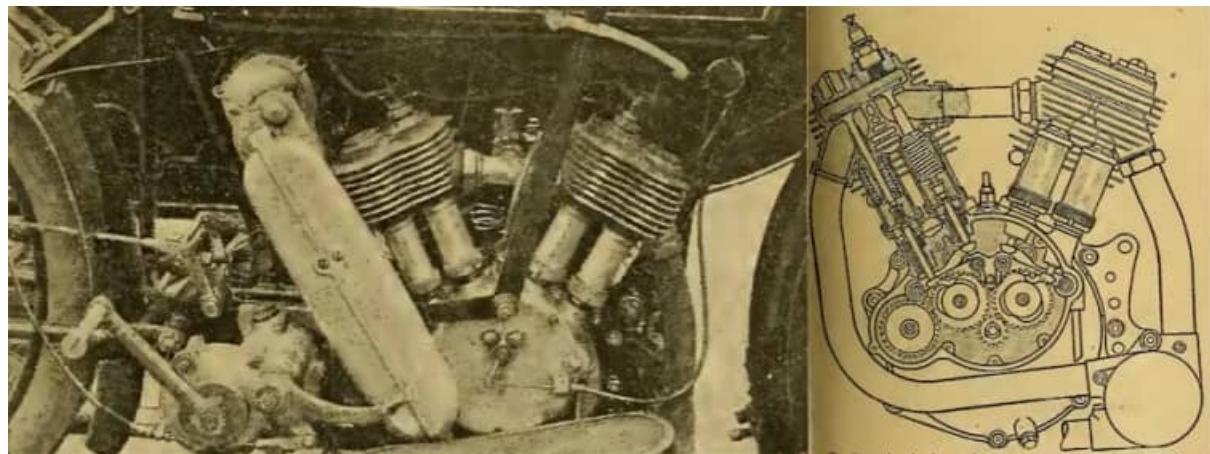
"Ram combination, 'V' Beldam, Rapson, Palmer steel studded, Richmond, Roberts, Rom."



"Pedley heavyweight beaded edge, Cuthbe Max, John Bull rib stud, Hermetic Peerless type Z, Wood-Milne, Pedley rubber-studded."

"WHEN THE RECENT EXTENSIVE fire at the James Works is recalled, one would be inclined to pardon the James Cycle Co, Ltd, if they, like so many other firms, had rested upon their laurels this year and retained unaltered the highly successful 5-6hp twin as their big passenger machine. Therefore we congratulate them on the production, necessarily under difficulties, of a new 7hp twin sidecar outfit. A fine example of its type, the engine is of strikingly clean external design. Conventional otherwise, the latter feature is gained by an entire absence of nooks and crannies in its crank case and valve-gear cover, and by the adaption of quite the neatest valve-spring covers we have seen. These latter are of aluminium, cylindrical in shape and instantly detachable on a split bush and taper principle. Provision is made for lubricating the valves and

for allowing surplus oil to return to the crank case. The 73×89.5mm cylinders give a total capacity of 749cc, and the makers rate this, their No 10 model, at 7hp, a figure we have no doubt it greatly exceeds in practice."



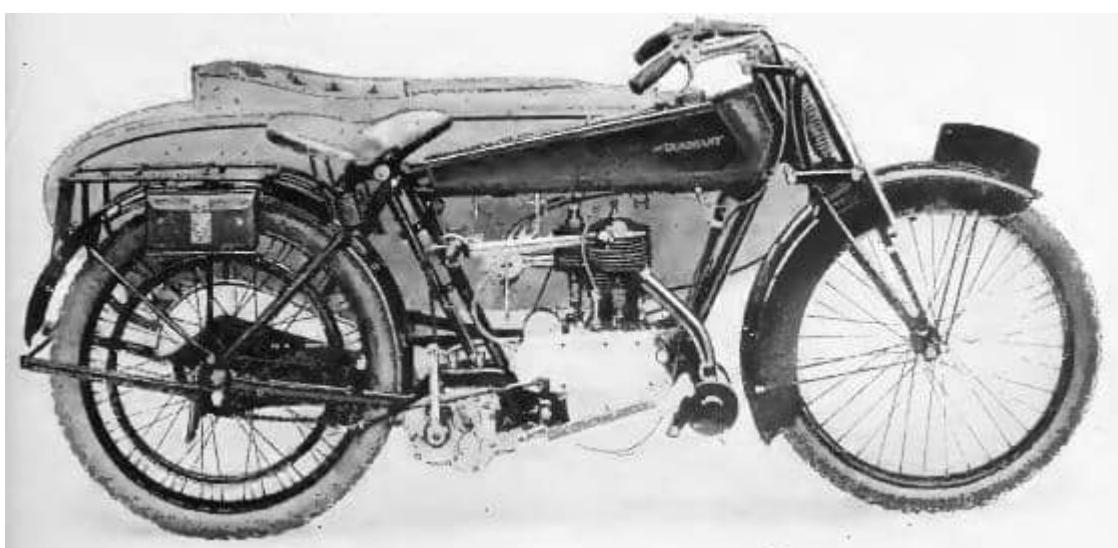
"Very clean external design is a commendable feature of the 7hp twin James engine. Note the valve covers."

"SILENCE AND SERVICEABILITY are obviously the watchwords of the BSA Co in introducing their new 4½hp [557cc] motor cycle. Reliability and a capacity for hard work have long been associated with the firm's productions, and the regular performances of these machines in all the big reliability trials are now taken as a matter of course...The new cam gear has obviously been designed with a view to silent action, and a large silencer is also fitted, which, in conjunction with a long tail pipe, reduces exhaust noise to a minimum without causing any appreciable back pressure, since no baffles are used. The second point consists of a very considerable improvement in the controllability of the machine, brought about by shifting the clutch to the primary shaft of the gear box. The clutch is also fitted with a handle-bar control...The well-known BSA spring shock absorber is mounted on the engine-shaft, and thence a chain transmits the power to the new clutch and gear box. This clutch is of the dry plate type, having seven plates, and the gear box is similar to that of the 6hp machine; that is to say, all gears are constantly in mesh, the ratio changes being effected by sliding dogs. The secondary transmission is also by chain, and both chains are entirely enclosed in oiltight, but detachable, aluminium castings...a new spring fork is now used having one long barrel-shaped spring housed between the fork blades, and giving an exceptionally long 'travel' without bumping. This fork, combined with the BSA spring saddle-pillar, provides excellent insulation from road shocks."



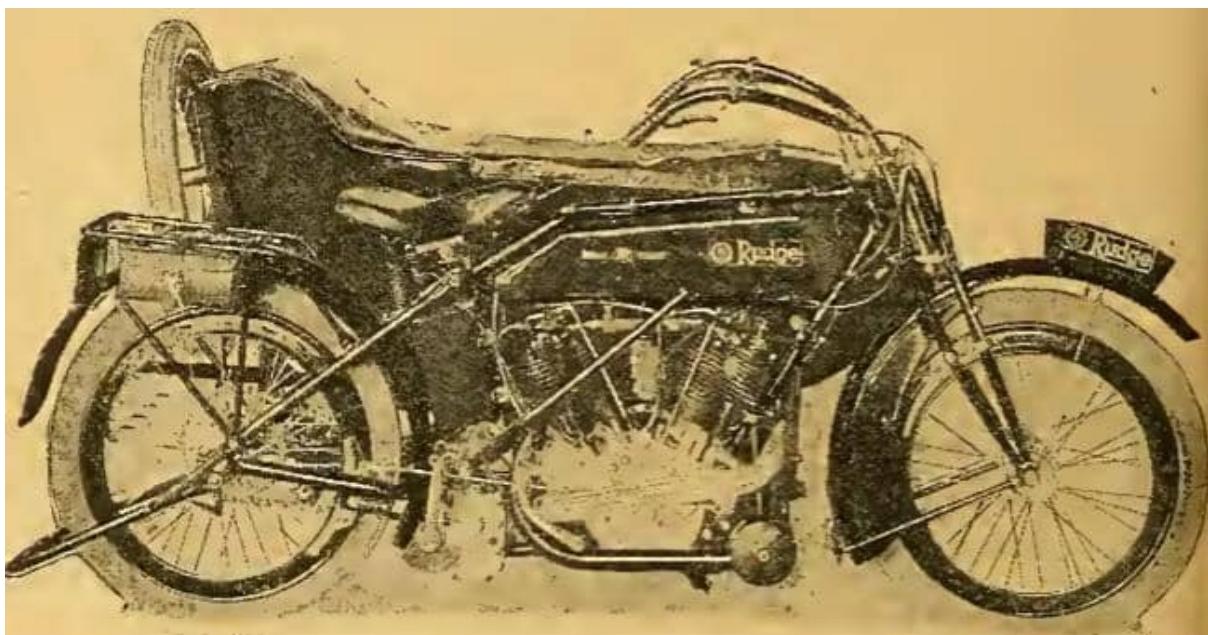
"The 4½hp BSA, which has a newly-designed engine, gear box and clutch, and cast aluminium chain cases."

"ONE OF THE BEST KNOWN names in the early days of motor cycles, the Quadrant remains a sound straight-forward machine that is a typically British production embodying good workmanship and solid useful design. The latest addition to the Quadrant range is the new 6hp single-cylinder outfit, which in all its main features closely resembles the better known 4½hp model. Having a single bore and stroke of 87x110mm respectively (653cc), the design retains the well-known Quadrant disposition of the valves, the exhaust being at the side, and the inlet behind the cylinder...The silencer is of unusual construction, in that the end plates form part of the engine cradle castings, and hold between them a large diameter tubular expansion box, from which a tail pipe runs below the left footboard."

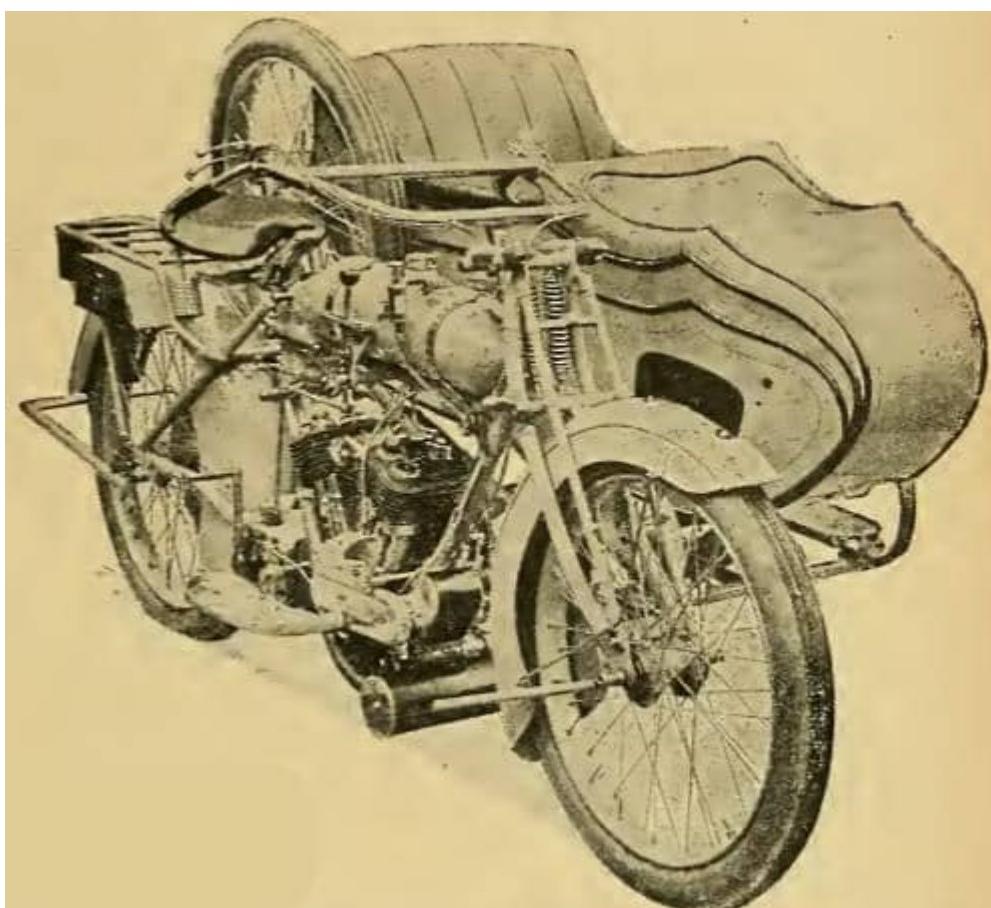


"A single-cylinder of 653cc. The 6hp Quadrant, a sturdy machine of sound construction."

"A



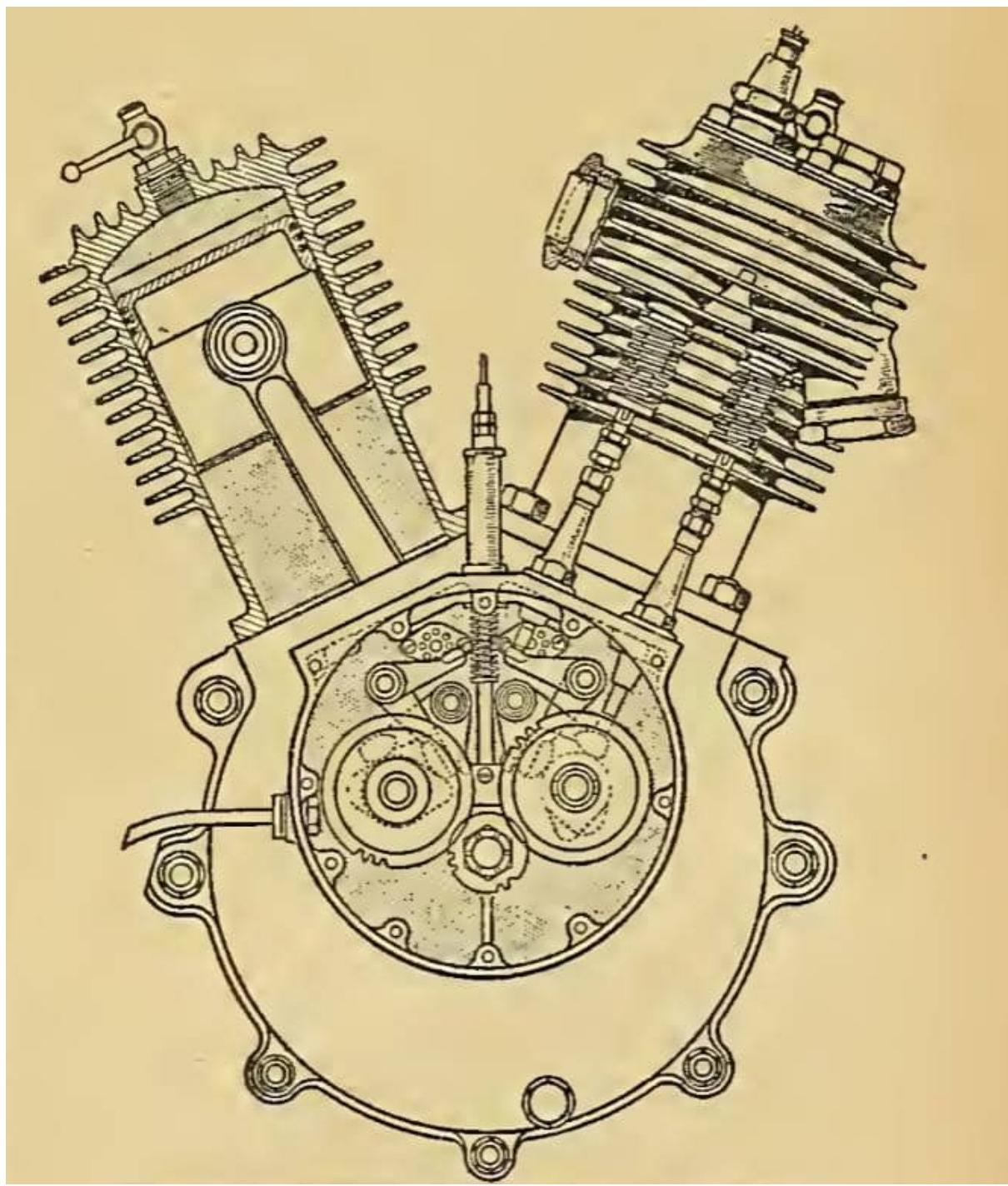
"An 8hp twin three-speed countershaft gear model is the latest development of the Rudge Company. The interchangeable wheels will be noticed...A short trial run convinced us of the ample power of the engine and the absence of snatch from the chain transmission. Gear changes were made easily and quietly."



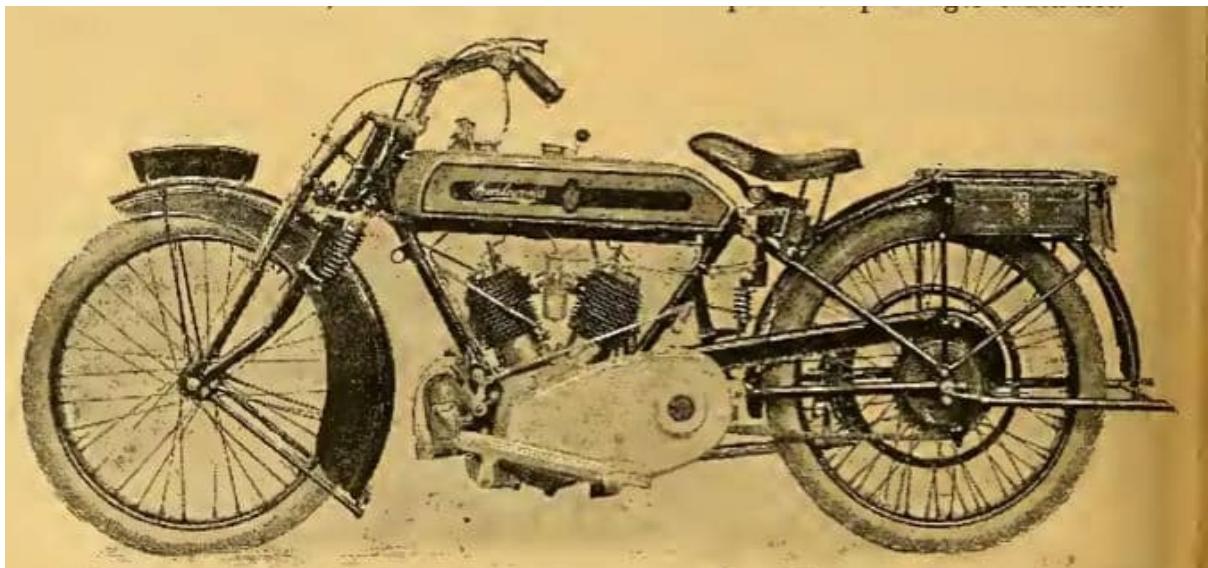
"A machine associated with motor cycling's earliest history. The latest model 8hp Bat has combined improvement with simplification." This model was available with "the Bat taxi-sidecar, the body

of which seats two side by side, and is attached to a chassis which is less than 1ft wider than the standard".

ROYAL ENFIELD DESIGNED AN 8hp V-twin which was built by Vickers—"a particularly appropriate combination, since for many years the slogan of the former concern has been 'made like a gun'...Many of our readers have been made familiar with the standard of quality on the Vickers gun, and we can say that the new Enfield engine is as well made. There is nothing radically new in the design; rather it is an engine following conventional practice, but of absolute refinement and finish. It has a mechanical oil pump driven off one of the camshafts—a very neat little piece of mechanism containing but a few parts. The bore and stroke are 85.5 and 85mm respectively (964cc). The framework of the machine remains practically as before."



"The newly designed Enfield 8hp twin engine."



Hazlewood upped the ante with an 8hp 1,000cc JAP twin, driving through its proven three-speed countershaft box and cork insert clutch. This was also the first model in the range to sport a saddle tank.

"A SECOND PETROL CONSUMPTION test was made by the makers of the Levis last Saturday, which was officially observed by the ACU with a standard 211cc Levis weighing 129½lb and a rider of 117lb. Geared 5½ to 1 and averaging a speed of 21.6mph, the consumption worked out at the rate of 245mpg. Another machine, weighing 131¾lb with a rider of 151lb and geared 5¾ to 1, covered 54 miles at 21.6mph on a consumption equivalent to 320mpg. Standard Amac carburetters were used."



"The two machines on the left are the Levis two-strokes which underwent an officially observed

petrol consumption test recently. The fuel consumption worked out at 164mpg and 226mpg respectively.”

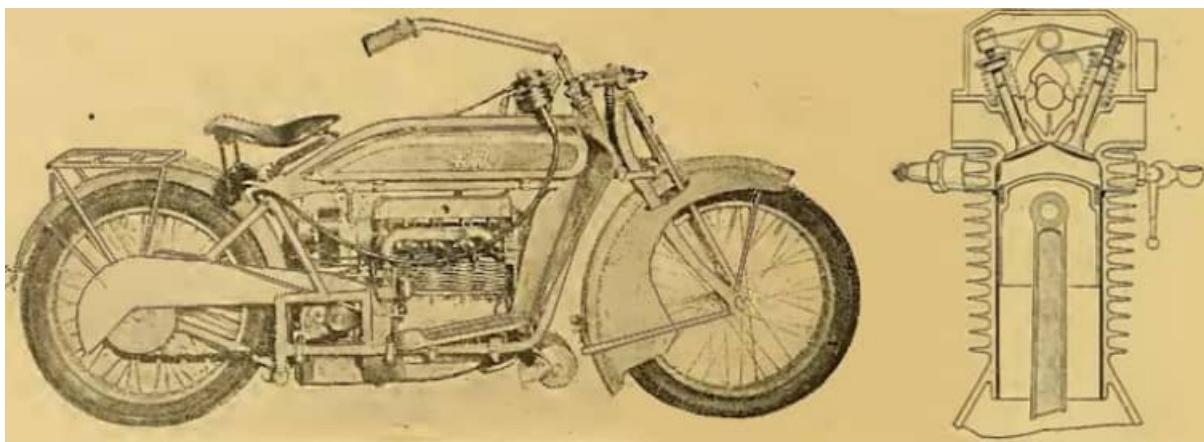
“THAT HE WOULD NOT GO round again for £50 was the verdict of a finisher in the Leicester &DMCC Trial for the Lunt and Pascell Cups. However, the fact that Master A Bowerman (aged 14 years) on a Velocette successfully completed the course to a very slight time variation from schedule proves that it was not at all an ‘impossible’ event. Seventy-two started and forty-three finished—many as much as half-an-hour late, however. It was long after lighting-up time before the last man got in. It was a day of spills, and the solo competitor who could number his skids on the fingers of one hand was a rarity. The two ABCs were prominent in the acceleration test on Rowsley Bar, while the Nortons and Triumphs ran very consistently throughout. H Bashall (6hp Martinsyde sc) made an exceptionally good show until he tried conclusions with a brick wall near Green Hill. The latter precipice proved the undoing of many, but the AJS and Matchless outfits were almost all good. Bowerman’s performance will probably gain him a special award.”

“I DARE NOT DOGMATISE,” Ixion wrote, “for the ways of the fuel magnates are past finding out, but I have a certain amount of justification for stating that in localities where a two-gallon can of benzole is scarcer than pre-war whisky, it may yet be possible to order, and to receive delivery of, a fifty-gallon drum. At any rate I wot of riders who have found this lordly solution practicable. One presumes that the can trouble may occasionally worry the benzole distributers, so that the cynics who hold that the Shell and Pratt shareholders reserve the benzole for their own use may be grossly mistaken. Now fifty gallons is obviously an impossible order for an individual motor cyclist to place. But there are such things as motor cycling clubs. ‘Nuf sed.’”

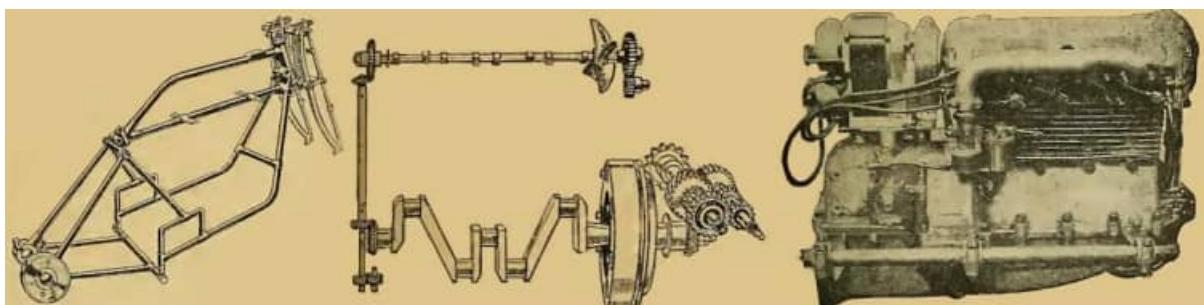
“BRITISH PETROL: AN ANNOUNCEMENT noticed on the Anglo-American Co’s petrol lorries is to the effect that that company has purchased from the British Government the output of the new Hardtoft wells in Norfolk.”

“A CORRESPONDENT IN *THE DAILY Mail* seeks a brief alternative term for ‘a motor bicycle and sidecar’, suggesting that motor bicycle and sidecar is the unwieldy name by which sidecars are known. Evidently our friend is not well acquainted with the motor cycle movement, or he would know that the accepted term is sidecar combination or sidecar outfit’. Few, if any, adopt the longest way round. As a matter of fact the mention of ‘having seen a sidecar’ is usually sufficient, as one would hardly expect to find a one-wheel arrangement careering about the streets, so that ‘sidecar’ signifies ‘motor bicycle and sidecar’.”

“SINCE THE PASSING OF THE TMC, it is a deplorable fact that Great Britain has not, for many years, possessed a home-built four-cylinder motor cycle. Therefore, if for this reason alone, the advent of the Superb Four is calculated to arouse great interest.” The heart of the Superb was a 998cc ohc in-line four rated at 10hp. “Aluminium is used for the monobloc cylinder casting, which includes the upper half of the crank case; and an aluminium casing completely encloses the overhead camshaft, and valve gear...for additional cooling, a continuous draught of air is induced along the interior of the camshaft casing from a pipe connected to the carburetter air intake by a small fan on the rear end of the camshaft...A new form of detachable wheel, simply designed and of very strong construction, is being incorporated in this machine, while there are many other novelties, such as a miniature instrument board between the handle-bars for all the lighting instruments, etc, a water trap in the main petrol tank, special sidecar connections, twistgrip controls, and a four-gallon petrol tank.”



"Britain's challenge to American and Belgian designers of four-cylinder motor cycles—the Superb Four. (Right) Showing the construction of the Superb four-cylinder engine, which has aluminium cylinders, steel levers, and an overhead camshaft."



"Frame of the Superb Four machine. The complete engine and gear box unit is supported by three lugs on either side to the lower parallel tubes of the frame. Showing how the crankshaft of the Superb Four drives the overhead camshaft through bevel gears and a vertical shaft at the front of the engine. At the bottom of the vertical shaft will be seen the two gear wheels of the oil pressure pump. Behind the flywheel and the double cone clutch is the skew gear, driving the countershaft three-speed gear. The last word in motor cycle engines—the overhead camshaft four-cylinder Superb."

"SIR,—WE HAVE NOTED 'IXION'S' comments with reference to naked chains, and, as requested, we are passing on our remarks on the subject. Obviously, the ideal method of lubricating a chain is by means of an oil bath gear case, as fitted to the Sunbeam but, as you are aware, many makers fit cases which are merely chain covers, and unless the chain is periodically attended to by a conscientious owner, they are more dangerous than when the chain is running exposed, and can, consequently, draw the owner's attention to its condition by its appearance. In our experience, the best method of lubricating a protected or open chain is to take a dish such as an old roasting dish or similar shallow receptacle, and place in it a quantity of Price's 'Rangraphine' or Atcheson's 'Gredag', which is warmed up to melting point. The chain, which has previously been cleaned in paraffin, or some similar liquid, is then immersed in the molten lubricant and allowed to soak for five or ten minutes, the lubricant being just kept at the liquefying point. These compounds have not the peculiar smell associated with molten tallow, and we do not think that Mrs Ixion will have further cause of complaint. Home-made mixtures of tallow and graphite we cannot recommend, as our experience has been that the particles of graphite are not generally fine enough to percolate into the inner bearing areas of the chain, and, consequently, while the outside looks as though everything has received a most excellent coating of grease and graphite on the inside, the reverse is the case. Trusting this will clear your

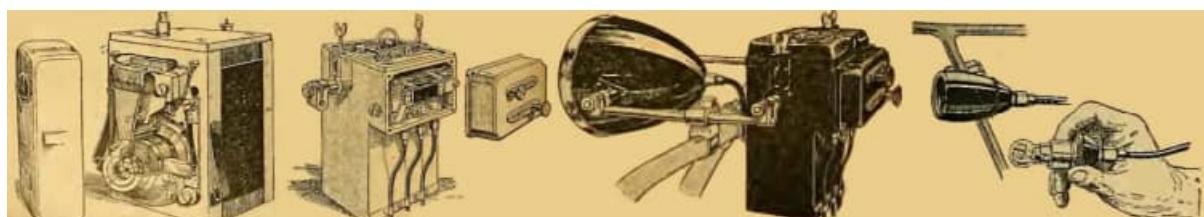
contributor's mind on the subject,

Hans Renold, Ltd.

"SIR,—MAY I TAKE THE LIBERTY of giving you a few details respecting the running of a 1920 P&M? I took delivery of this machine (solo) on Easter Saturday, and before leaving the shop had fitted a fairly heavy Millford sidecar. I have run 3,749 miles on various mixtures of petrol and benzole, petrol alone, and benzole alone, but I find I get best results by far on benzole. I give you the averages as follows: 3,749 miles on 47 gallons of spirit, equal to 79.71mpg; 3,49 miles on five gallons BB oil, equals 749.8mpg. I weigh 9st, my passenger 10st. I consider this a very satisfactory record. Oil may be rather heavy, but I have not been sparing with this, and consider I have got the benefit by the smooth and even running of the whole outfit under all conditions experienced."

HT Roberts, Grimsby.

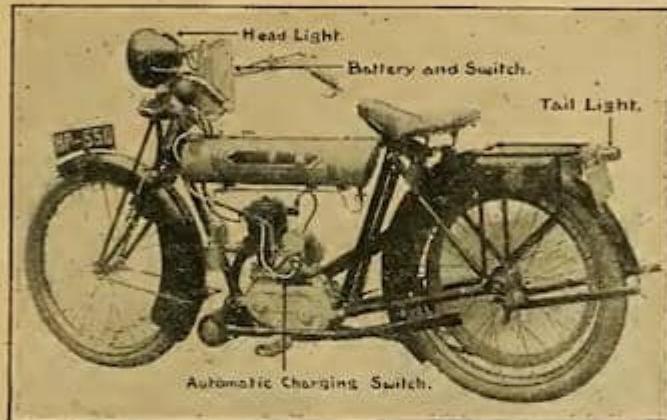
"A DEVELOPMENT OF GREAT importance to motor cyclists, and one which should make a very wide appeal, is represented in the new electric lighting and ignition system known as the M-L Maglita. After many months occupied in testing the equipment in the laboratory and on the road, the M-L Magneto Co, of Coventry, have now standardised the outfit in a form rendering it suitable for single-cylinder machines with either two-stroke or four stroke engines. The set, which can be fitted readily to existing machines, comprises two units beyond the usual head and tail lamps. The first is a combined magneto and dynamo capable of being substituted for the ordinary magneto, the second is a combined battery and switch unit, which displaces the generator of acetylene lighting systems and occupies very little more space...There is no interconnection between the lighting and ignition circuits, so that any accident to the lighting circuit cannot affect the ignition, and yet, in effect, the machine is similar to one employing two separate armatures with gearing between them. Further, the ignition system is quite independent of the battery ; if the latter should be run down or even removed the engine can be started and run normally, and efficient lighting obtained so long as the engine is running."



"Part sectional view of the Maglita combined generator and magneto, showing the commutator of the lighting circuit, also the face cam, insulated thrust pin, and spring steel blade of the Ignition contact breaker. Battery and switch case of the Maglita equipment, with covers of battery and switches removed. Maglita head lamp, bracket, and, cases containing batteries and switches. Maglita rear lamp; the lampholder is detachable for use as inspection light."

B.T.H. "Sparklight" combined ignition and lighting system.

The B.T.H. "Sparklight" combined ignition and lighting system for single cylinder two-stroke engines, consists of a standard B.T.H. single cylinder magneto, with an attachment to enable the idle half of the voltage wave, generated in the low tension winding (which with every single cylinder magneto is wasted), to be utilised for either charging a battery or supplying lights.



Advantages:

- Lighting system does not increase the power required to drive the magneto.
- Light always available whether engine is running or not.
- Light can be obtained with or without battery when engine is running.
- Absolutely no attention required. Charging switch is automatic in operation.
- Battery cannot discharge through the magneto when engine is not running.
- Lighting does not in the slightest degree affect the efficiency of the spark.
- Non-spillable battery. Inexpensive.

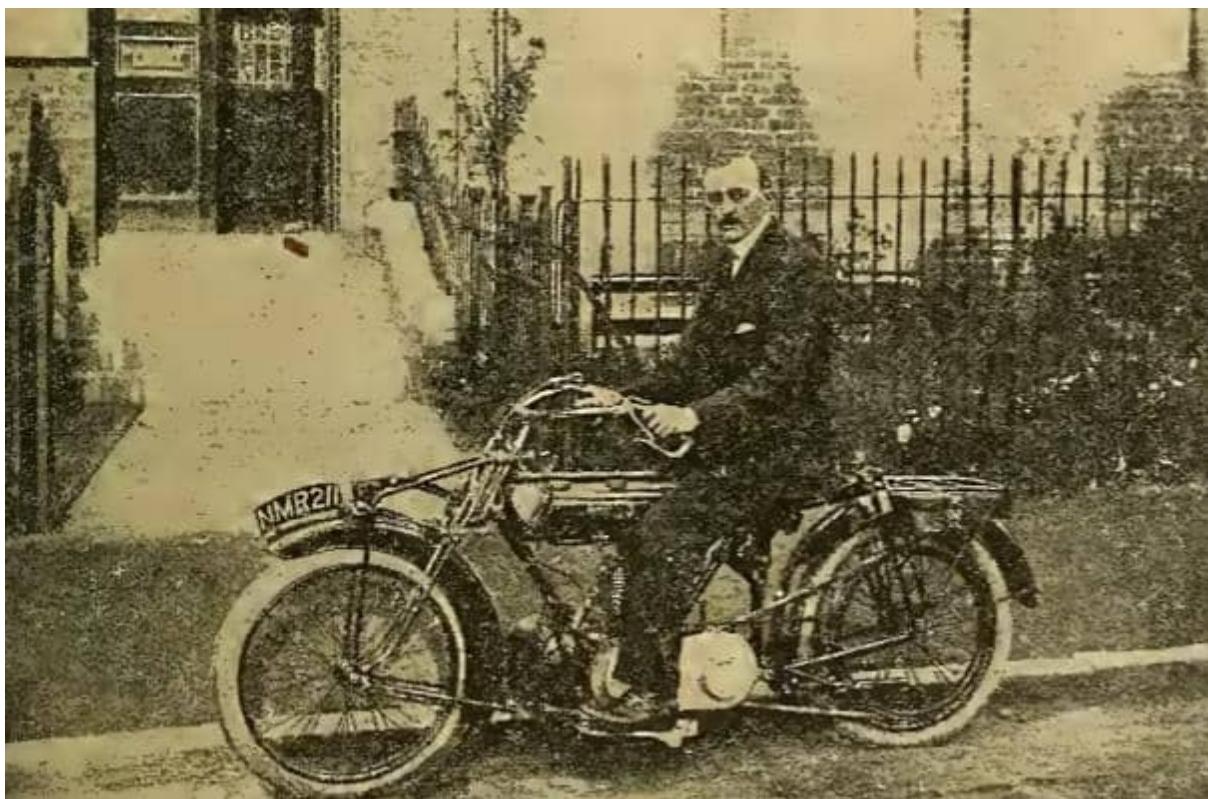
Write for description CM. 212 on B.T.H. "Sparklight."



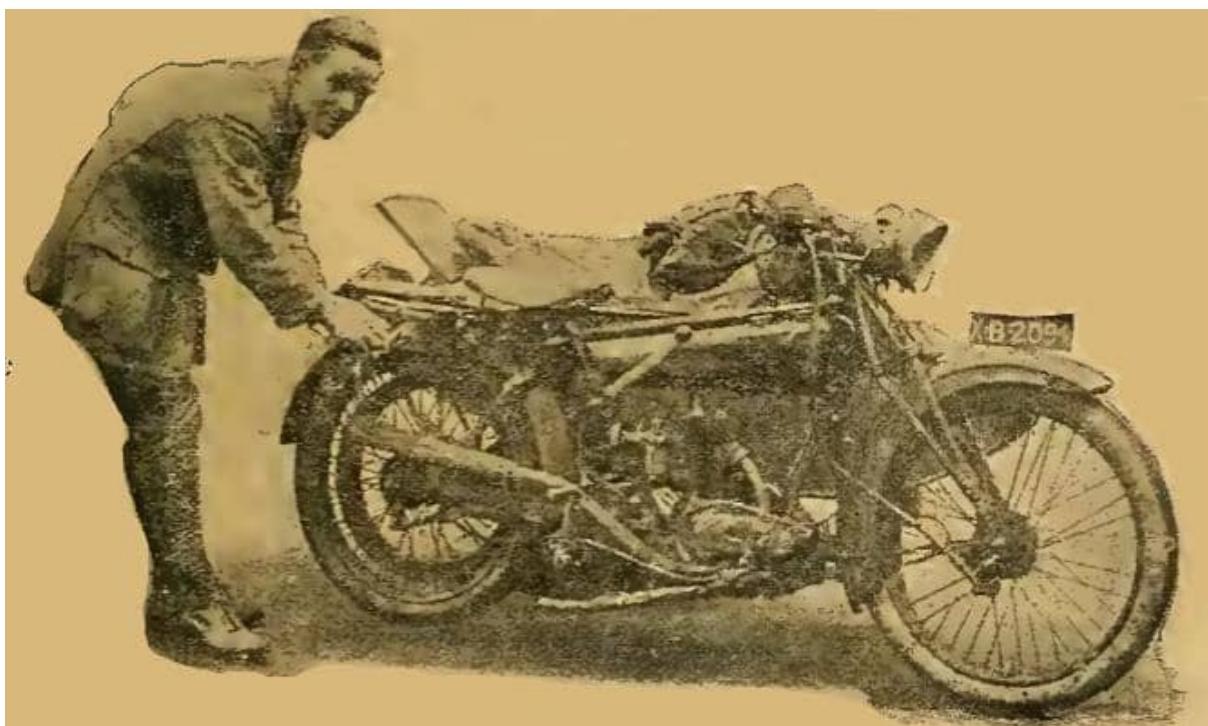
**The British Thomson-Houston Co., Ltd.,
Lower Ford Street, Coventry.**

Maglite

didn't have the magneto lighting market to itself...



"A popular rider, Hugh Gibson, outside the new offices of the Royal Ruby Works, on his mount, a 3hp spring frame Royal Ruby. Mr Gibson is best known for his prowess on Bradbury and Clyno machines. During the past ten years he obtained many notable successes, including the English and Irish End-to-end journeys, and other fine performances in England, France, and Holland."



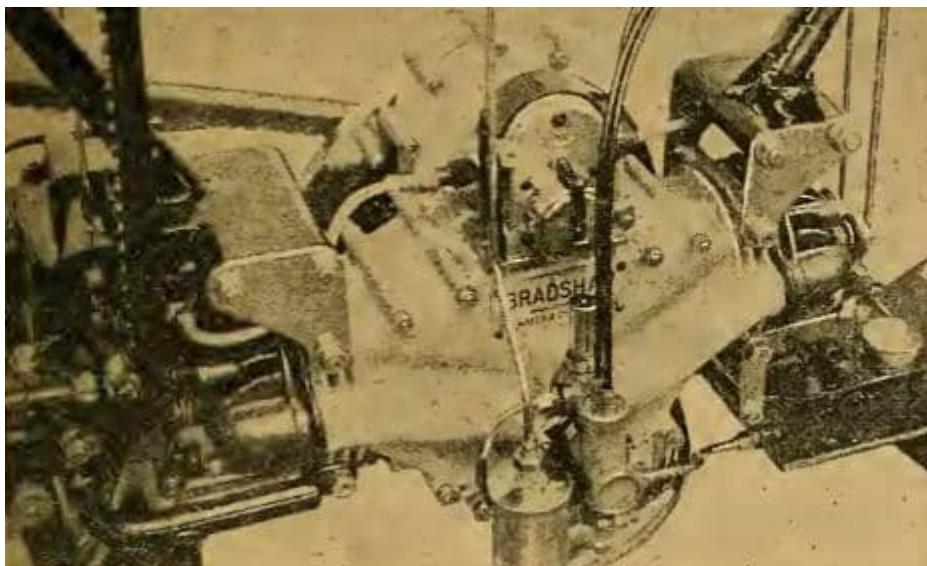
Rex Mundy rode A 2½hp 350cc Coulson B combo, with an ACU observer in the sidecar, from London to Edinburgh non-stop without stopping the engine.

LESSONS FROM OLYMPIA.

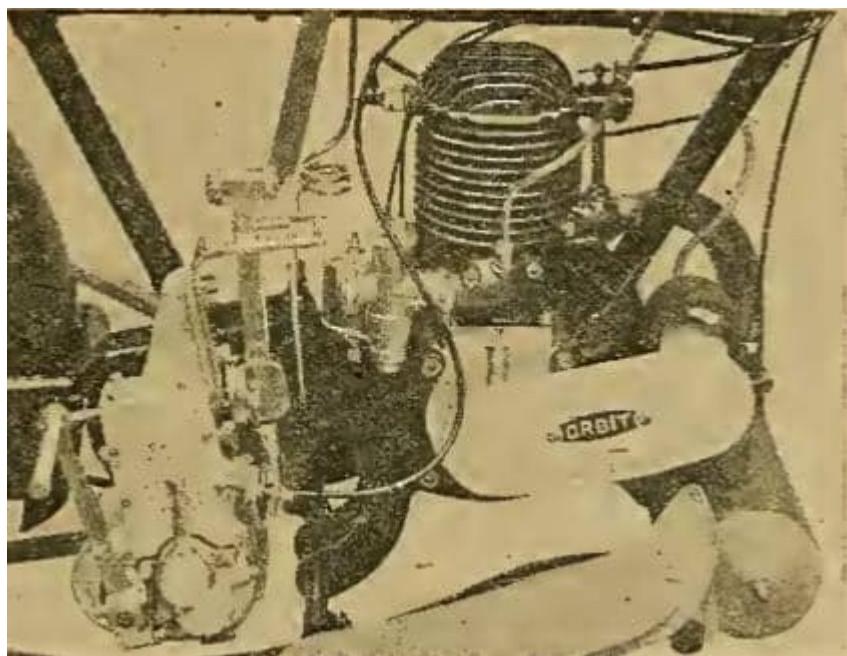


Tendencies of Modern Motor Cycle Design as exemplified at this Year's Show.

"1920 OLYMPIA IN FIGURES: 96 exhibitors of motor cycles and miniatures. Two-stroke engines are staged by 48 makers. Four-stroke engines are staged by 61 makers. The battle of types—1921 models classified: 50 V-twins, 48 4-stroke V-twins, 46 single-cylinder two-strokes, 11 flat twins, three four-cylinder, two two-cylinder two-strokes, one water-cooled motor cycle. One maker uses five different sizes of engines, four makers use four different sizes of engines, eight makers use three different sizes of engines, 33 makers use two different sizes of engines, 40 makers use one size of engines...the outstanding features are: improvements in cooling. A new British four-cylinder. Mechanical lubrication systems. New electric lighting sets. Weatherproof passenger machines. Improved saddle suspension. Novel two-stroke engines. More overhead valve engines. New countershaft gears. The large number of dual-purpose single-cylinder mounts. Lightweight sidecar outfits. Novel frame designs. Increasing adoption of saddle tanks. Many new spring forks."



"A novel engine is the 3½hp Bradshaw which has all but its cylinder heads buried in the crank case."



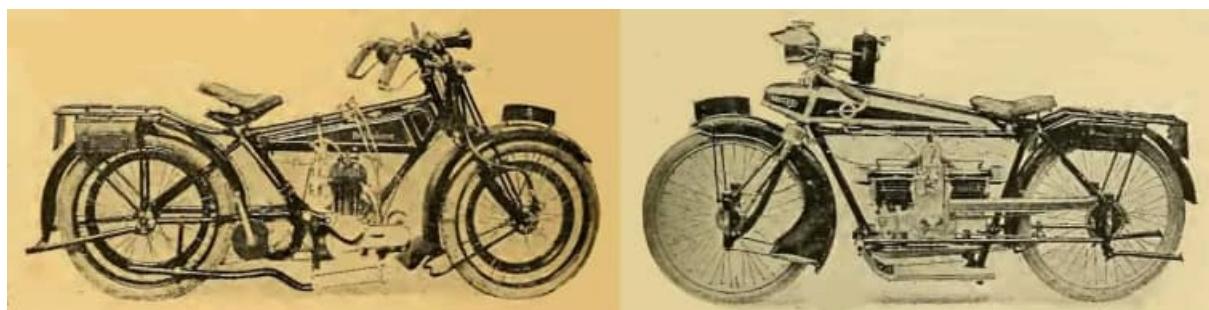
"The only four-speed gearbox in the Show. The Olympic lightweight fitted with a Jukes gear."



"Ladies will be particularly attracted by the Cedos open-framed lightweight fitted with a light sidecar. (Right) Large flat twins generally appear unsymmetrical. Not so this 5hp Raleigh—even the spring frame is the essence of neatness."



"A 3 1/2hp TT overhead valve Dot-JAP. (Right) A simple single-speed lightweight—the Olympic."

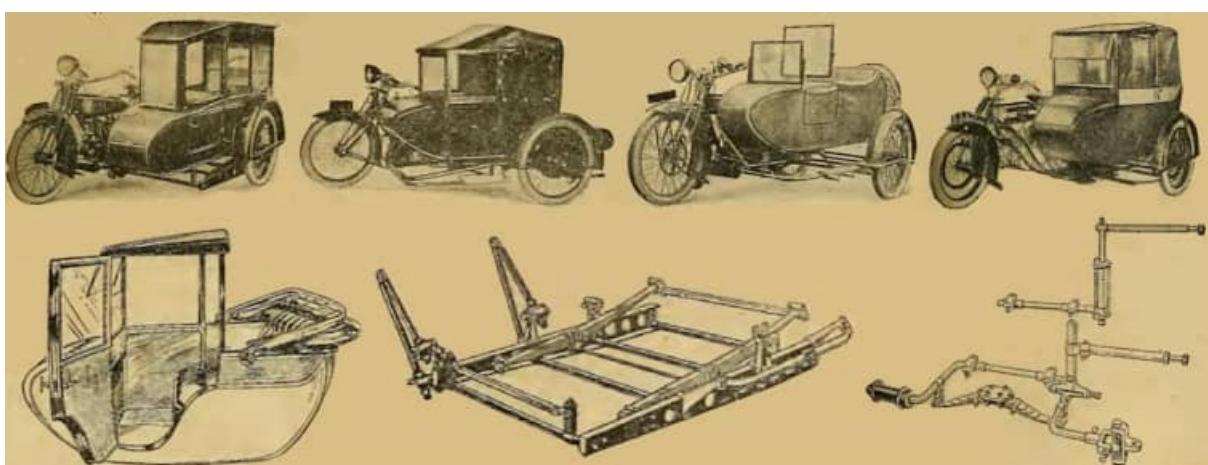


"Wide dome guards, a spring seat-pillar, and a Best and Lloyd mechanical pump are features of

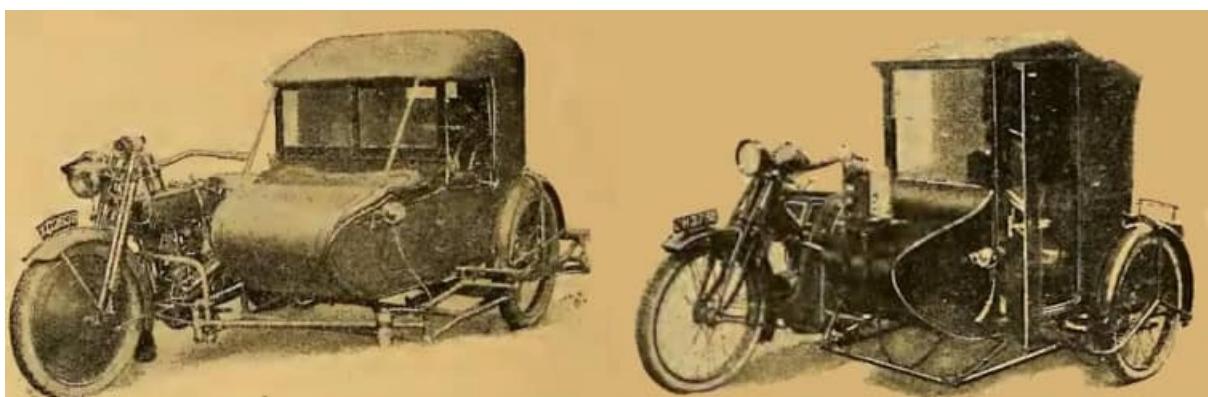
this Hoskison Show model. (Right) After long adherence to belt transmission, the 2¾hp Wooler is now offered optionally as a chain-driven machine."



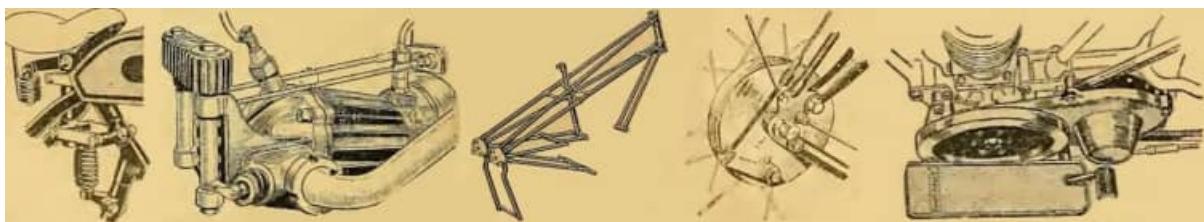
"Special silencing arrangements are a feature of the Precision-engined 350cc two-stroke New Scale. (Right) An imposing big twin, the 8hp JAP-engined Acme has a long wheelbase and saddle-pillar, both of which add to the rider's comfort."



Taxi sidecars featured at the Olympia show: "Staggered seats with a space for luggage are features of the Rex taxi sidecar; the engine is an 8hp Blackburne. Nottinghamshire readers will be familiar with the 8hp Campion taxi sidecar, as it has appeared on the streets of the Notts capital for months past. Threequarter view of an 8hp Matchless, fitted with a double seated sidecar—the new front wheel band brake will be observed. The possibilities of the sidecar are amply demonstrated at this years Show. The example illustrated is the double-seated Canoelet fitted to a twin-cylinder, three-speed BSA. This cabriolet Canoelet sidecar taxi is designed to defy the weather. The sturdy pressed steel chassis of the Rex taxi-sidecar. Shock absorbers, special joints and a transverse spring are features of the Millford Rock 'chassisless' sidecar."



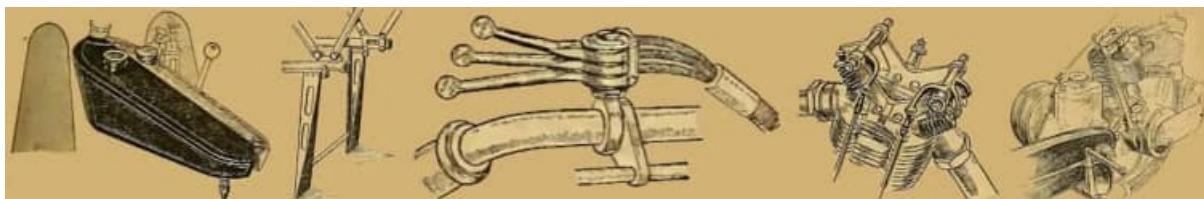
"A roomy Sandum taxi sidecar attached to a Harley-Davidson machine. (Right) Here is a Watsonian with the taximeter mounted on the nose of the body."



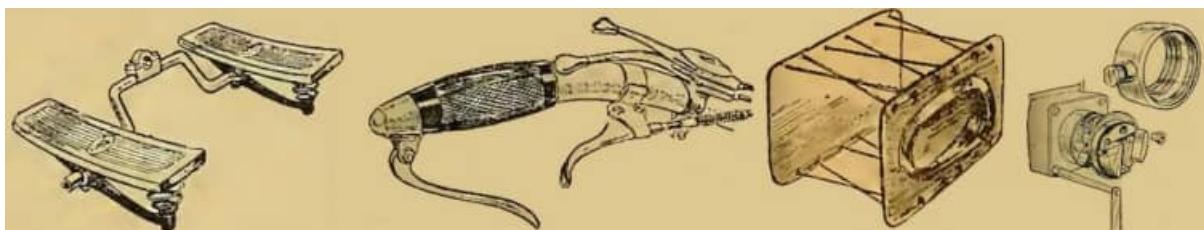
"One of the several auxiliary systems of saddle suspension, the Hazlewood. On the new Douglas, radiating fins are cast on the small aluminium oil reservoirs, from which the overhead valve rocker shafts are lubricated by a wick system. On the Cotton frame every tube is straight, subjected only to compression or tension; it is light, strong, and rigid. On the AJS the internal expanding front brake is operated by Bowden control. The new Connaught machines are fitted with a sound-proof, cast aluminium cover, enclosing the chain drive from the engine to the countershaft. Observe the heel brake, which, is easily 'found' by the foot on the footboard."



"The new Connaught tank, which is of improved design and has a large capacity. Zeniths now have a cable-operated dummy belt rim front brake. Clean outline is obtained on the Francis-Barnett by leading the control wires inside the saddle tank. The Rudge experimental all-steel belt is, broadly speaking, a chain with spring bearing faces. Front wheel removed from the forks to show the new front wheel band brake on the Matchless; when the axle is withdrawn and the wheel slipped out of the forks, the brake band and the brake torque stay retain the brake drum in position—when the front wheel is in position the brake drum is locked by serrations to the wheel hub."

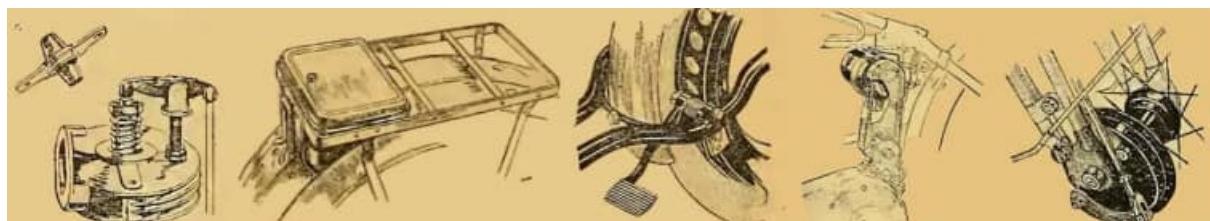


"Saddle type tank of Alldays-Alfon, also showing the height to which the leg guards extend. Pressed-steel construction combines lightness with strength on the Beardmore rear stand. Ignition and the two-lever carburettor are controlled from the same handle-bar mounting on the Beardmore-Precision. A cylinder head of the NUT six valve sporting model. Valve side of new 5hp Lea-Francis power unit, showing the new three-speed gearbox with enclosed selector mechanism."

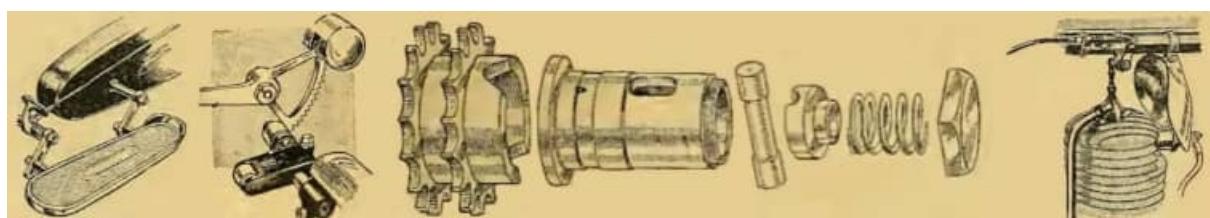


"Stonehouse aluminium spring footboards. A special short lever for the operation of compression release valves, made by Bowden Wire Ltd. A new concave knee-grip introduced by

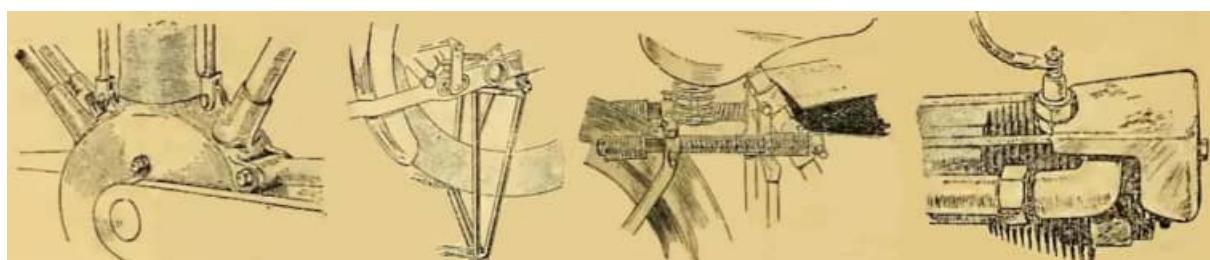
Alfred Roberts & Co Ltd; the rim is of soft rubber. The centrifugally-operated distributor brush for the lighting circuit on the ingenious BTH lighting and ignition set."



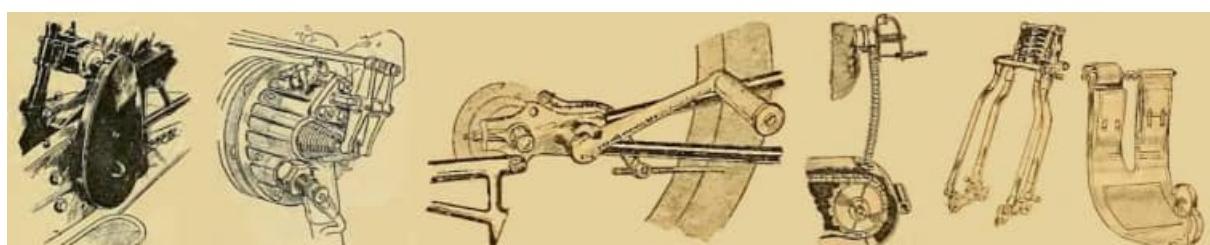
"Overhead exhaust valves on the Martinsyde permit this ingenious detachable valve guide to be used. On the 1921 electrically equipped flat twin Harley-Davidson the tool kit is carried in a pressed steel box between the rear mudguard and the luggage carrier. For lightness and simplicity it would be difficult to improve upon the Levis rear brake. The lighting dynamo on the new Indian Scout is driven from the countershaft through enclosed subsidiary gear wheels and coil spring drive to the dynamo pulley. The 1921 Velocette has an internal expanding front wheel brake."



"On the New Imperial the footplates are adjustable horizontally and vertically. Rubber buffers on the P&M kick-starter which act as stops at either end of the stroke. Component parts of the P&M cushion drive device. Cooling of the sparking plug is provided for on the New Hudson two-stroke by an air deflector under the tank."



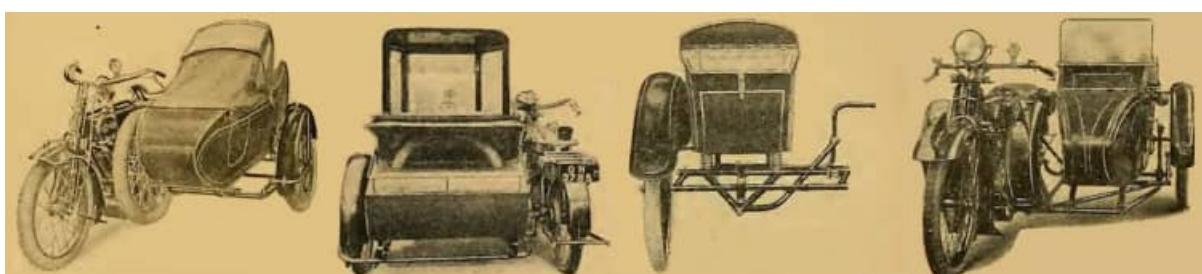
"On the Bradbury the frame lugs are cast in one with the crank-case. A new, light, but strong rear stand is fitted to the all-chain Rex outfit. Very simple, but most efficient, is the Hobart spring frame, a detail of which is shown above. The overhead valve mechanism of the Brough is protected by a neat cover."



On the 5-6hp Rover a Lucas dynamo (fitted on the down tube) is driven by an enclosed chain from the countershaft. Cast aluminium footplates are fitted to the new model. Detachable cylinder head and overhead valves operated by push rods on the 1½hp Skootamota engine. On the Scott the fork-end lug has incorporated with it a stop for the kick-starter; the underside

serves as a rest for the stand. Oil vapour emitted from the Metro-Tyler release valve serves the useful purpose of lubricating the magneto chain. A rear spring-frame attachment for existing machines—the Warner—exhibited by the East London Rubber Co. Conveniently placed pockets are an additional advantage on the College mud shield.”

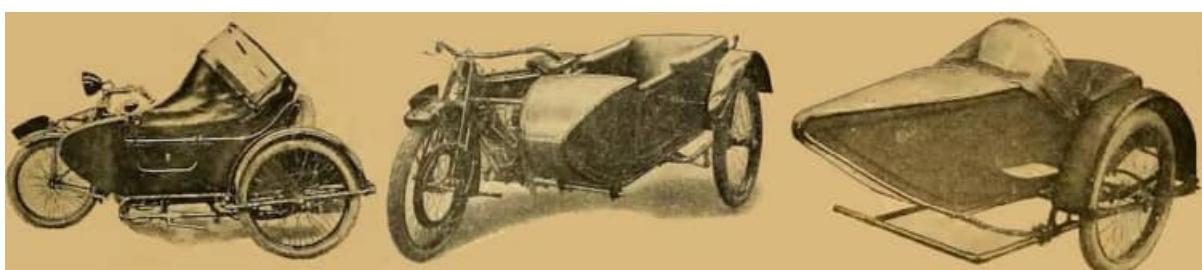
THE NUMBER OF SIDECAR manufacturers exhibiting at Olympia reflected the importance of this sector; the Blue ‘Un reviewed the market and mentioned a good number of types. They included: Acme, AJS, Alecto, Ariel, Armis, Bat, Beardmore Precision, Blackburne, British Excelsior, BSA, Calthorpe, Campion, Canoelet, Cedos, Chater-Lea, Clyno, Cooper Allan, Coulson-B, Dalton, Dot, Douglas, Dunelt, Dunhill, FN, Grindlay, Harley-Davidson, Henderson (of Sheffield), Indian, Ivy, Ixion, James, Matchless, Millford, Montgomery, New Imperial, Norton, P&M, Plus-One, Quadrant, Raleigh, Rex, Rideezi, Rover, Royal Enfield, Royal Leicester, Royal Ruby, Rudge, Sandum, Scott, Scout, Sidecar Body Co, Sunbeam, Triumph, Victoria, Volta, Watsonian and Wilkin. The majority also made motor cycles; some, notably Sandum, made bodies for other manufacturers.



“Comfort for the tour is amply provided in the 8hp Chaler-Lea outfit. Partially concealed, the spare wheel on the Watsonian taxi-sidecar is carried immediately in front of the large locker. Simple and adjustable suspension is provided on the Sheffield Henderson spring-wheel model. One of the most popular twin-cylinder sidecar outfits on the road during 1919-20 was the 5-6hp James; it is now equipped with a 7hp engine and should meet with increased success.”



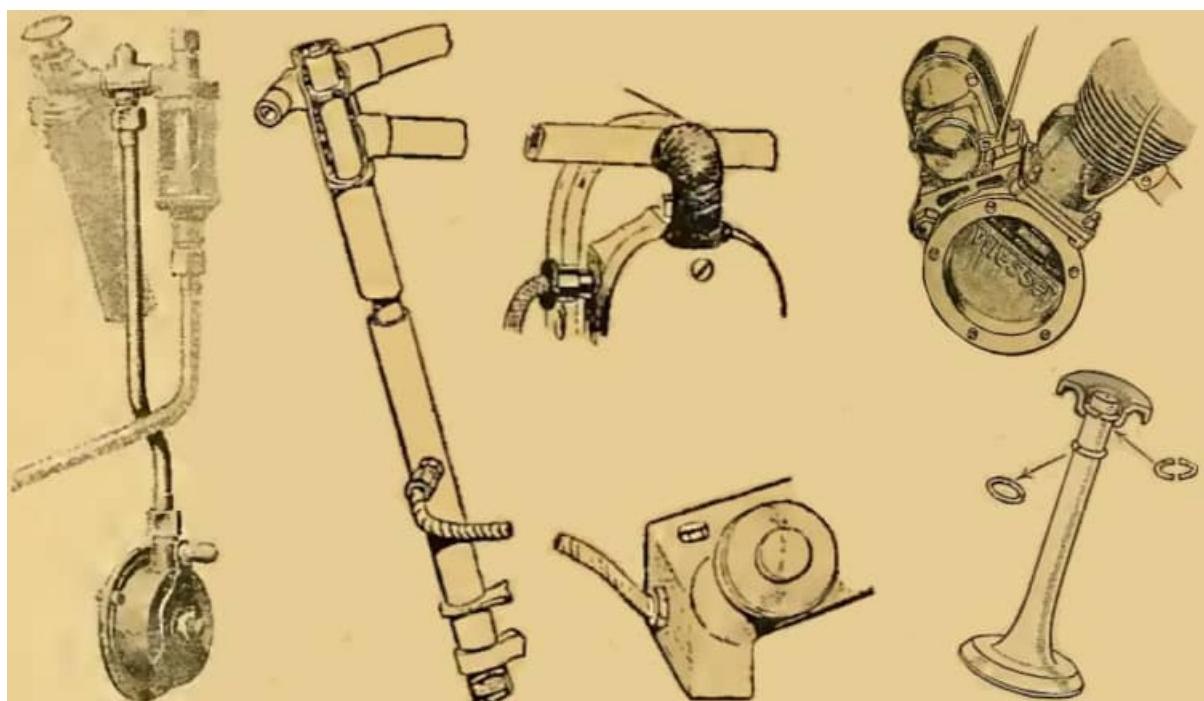
“4hp two-stroke three-speed Dunelt and sidecar, one of the cheapest outfits in the Show. With a moderate selling price, the Martinsyde outfit is unusually distinctive and refined. Reminiscent of an aeroplane cockpit, the Quadrant has a touring sidecar on sporting lines.”



“An Easting windsreen and sidecar stand are two refinements on this elaborate Royal Ruby sidecar. This Millford Rock ‘chassisless’ sidecar attached to a P&M has many special points of interest in its design. Sporting model sidecars are showing no sign of waning popularity, and the

faults of the earlier models are being eliminated. Comfort is now provided, without sacrifice of speedy appearance, as exemplified in this particular Grindlay model."

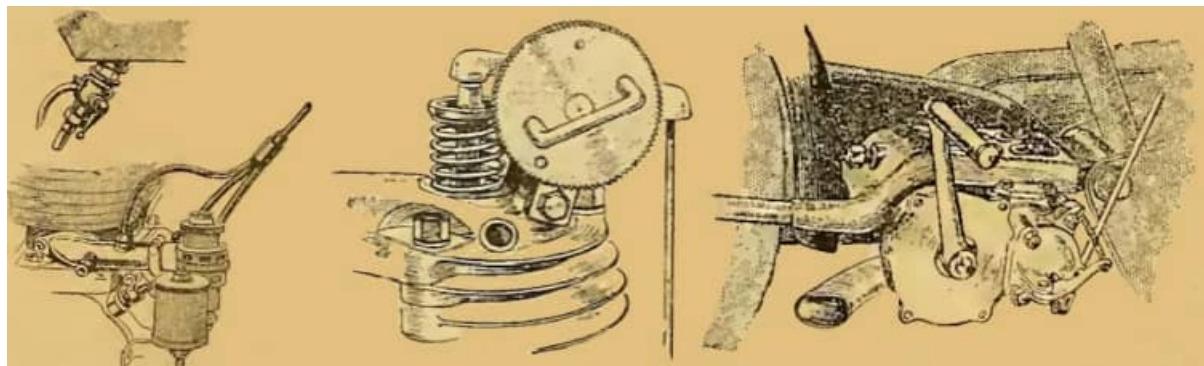
"A FEATURE OF THE 1920 OLYMPIA SHOW was the fact that almost every machine exhibited has either had a thorough trying out, or else is constructed on such sound and orthodox lines that mistakes are hardly possible...almost every new or redesigned engine is fitted with mechanical lubrication; the 8hp, Enfield, 3½hp Martinsyde, 3½hp and 2¾hp Douglas, 4½hp Ariel, Superb Four, Corona, and Bradshaw may be mentioned as sufficient examples which may be added to last year's list, while many other manufacturers are contemplating the use of some proprietary pump...one of the features which attracted most attention was the new Bradshaw flat twin. Here lubrication is carried to such an extent that it intentionally forms the most important part of the cooling system...the cylinders are sunk into a special crank case, and are liberally lubricated by surplus oil forced to the big ends. Special precautions are taken in order to distribute this oil over the whole of the crank case and timing gear so as to make the best possible use of the large aluminium radiating surfaces, and finally the hot oil is withdrawn from the base by another pump and returned to the tank, being cooled in the process of circulation...Two-stroke lubrication shows a tendency to depart from the simple petroil system in favour of various methods of drip feed. The Velocette remains the sole example of mechanical pump lubrication in this class, but the Levis naturally retains its well-known system of separate leads to each vital point. An ingenious system, utilising the exhaust gas as an injector, proportions oil feed to engine load on the Sheffield-Henderson...'There is no doubt that the limit of cooling and power output is not yet in sight, though the Bradshaw engine opens up a new and very promising field. A most interesting engine, the Superb Four, employs a monobloc



"An advantage of the Best mechanical pump is that it is designed to work in conjunction with existing semi-automatic drip feeds. The Wooler lubrication system. The oil contained in the air release from the timing case is forced against a baffle at the top[of the saddle tube, and, falling to the lower end of the tube, rises to the level of a pipe which returns It to the sump. Possessing only one main crankshaft bearing, the Sun has a large detachable cover to the off side crank case. One of the valves of the Superb Four engine, showing the split ring at the top for keeping

the valve spring cup in position, and the subsidiary split ring below, for preventing the valve falling into the cylinder should a breakage occur."

aluminium casting with steel liners. This method should be excellent, provided distortion does not make its unwelcome presence felt. With the exception of the little Whippet scooter, the Superb is the only example of aluminium construction, though there are one or two instances of detachable aluminium fins. Speaking broadly, the use of aluminium pistons does not appear to have caught on, possibly because they have in many cases been designed for weight reduction rather than for cooling purposes. The ultra-light aluminium piston is apt to demand big clearances, and thus produces an objectionable 'slap' until it warms up, and until it is more generally realised that a certain amount of metal is necessary to distribute the heat, no very great progress in this direction is likely...Two-strokes are undoubtedly advancing steadily, and the wonderful speed record of 66.97mph over the flying kilometre, established during Show week by a 250cc Velocette, will do much to encourage two-stroke designers. Certainly the average two-stroke is a far superior article to its pre-war prototype, though there is still comparatively little reliable data to help the two-stroke designer. Rotary inlet valves, such as are employed on the Scott Sociable, are likely to gain ground, since, by their use it is possible to diminish losses in the crank case charge, and thus increase power and improve consumption...Deflector shapes and piston cooling have made advances, and will continue to do so, though at the present moment there are no two deflectors alike...It is impossible to leave the subject of two-strokes without mention of the 500cc Dunelt. This engine utilises a double diameter piston so as to increase the crank case charge, and its wonderful performance in the ACU Six Days Trials is proof of its capabilities...There has been so little change in transmission that the subject may be dismissed in a few words. Messrs. Rudge-Whitworth provide two of the only novelties, one a solidly constructed countershaft gear fitted to the biggest twin-cylinder machine entirely produced by any one British firm, and secondly, an all-metal belt, which is said to be



"Three-way oil pipe on the Vindec lightweight. (Inset) Combined petrol and drain pipe. Instantaneous adjustment device for OHV rocker on the Rudge. On the big Excelsior chain adjustment is carried out by a simple bolt which slides the gear box along its platform."

'slip-proof' even in water...A new gear box is shown on the 5hp Lea-Francis, the Jukes four-speed gear is fitted to the Olympic...Worm drive on the Unibus is a novelty in two-wheeler construction, and the Superb Four and new Wooler chain-driven models are newcomers to unit engine and gear box systems...New spring frames are few and far between, but the number of auxiliary suspensions is legion: in fact, it is clear that, for the immediate future, manufacturers as a whole are content to look after the comfort of the rider rather than the well-being of the machine. Certain difficulties crop up in designing a satisfactory spring frame, and it would appear that these are being evaded, for the present at any rate. There is, however, a laudable

tendency to fit larger tyres, which will help both rider and machine to some extent...Amongst manufacturers of the the smaller class of machine, many are prepared to certify the weight of their products at under 200lb. This is as it should be, but there are still loo few of the 3½hp class who have managed to turn out a fully equipped machine at under the 30s taxation limit...Unsatisfactory as the new taxation appears, from the motor cyclists' point of view, it may at least have the advantage of inducing manufacturers to discard excess weight, and once improvement is started in the smaller classes it is bound to spread to the heavier types...Messrs Rudge-Whitworth, who have already introduced the neatest and quickest belt tensioning device in existence, showed this year an instantaneous adjustment for their overhead inlet rocker. Briefly, this consists of an eccentric rocker pivot pin, which can be rotated by the rider while the machine is in motion, thus compensating for any expansion when the cylinder warms up. A very fine adjustment is provided, and the device locks itself by means of serrations which engage with a deeply milled wheel on the end of the rocker pin. Another very handy device is the arrangement by which the carburetter of the Bradshaw engine may be moved laterally to correct uneven distribution. This also may be done whilst the machine is in motion; in fact, I am informed that JL Emerson has performed the operation at speeds in excess of a mile a minute on Brooklands. No observer, however casual, can have failed to notice the extraordinary increase in electric lighting for motor cycles. Following on the success of the Lucas Magdyno, the M-L Maglita has got a firm hold on the less luxurious machines, while the new BTH lighting set for two-strokes would undoubtedly have graced many of these little mounts had it been in production a week or two earlier."—**Ubique.**

AND OF COURSE IXION HAD also been round the stands at Olympia: "I really do not know why the press forecasts suggested that the emphasis of the Show was going to be 'safe' rather than Winston Churchilly—which term I interpret to mean a foundation of great soundness, illuminated by occasional flashes of brilliance and spasmodic lapses into excitement. There has never been any show which housed so many stolid and reliable machines, capable of giving a duffer 364 days' hard service in the year; and their staunch British respectability was pleasantly diversified by a few outrageous freaks and by a few audacious newcomers, which may or may not settle down into humdrum sobriety later on...Electric lighting is boosting busily; the Magdyno, Maglita, and BTH outfits sound the knell of gas. The front stirrup brake is



Douglas 2 $\frac{3}{4}$ hp 350cc: "An obvious flier, on sound lines, with one of the biggest motor cycling names on the earth behind it."

moribund, though a front wheel brake which cannot possibly rattle is still a rarity. We want a brake which, like the internal expanding pattern, is held positively 'off' as well as positively 'on'...Bradshaw's new engine? This obviously cannot be judged in connection with the hasty installation which had been rigged up against time for the Show. Move its oil tank—the heart of the design—to a less vulnerable position. Shield its carburetter from mud. Improve access to the tappets. Let it do a London- Exeter, or do a Brooklands record or two, and we shall all be falling over ourselves to get hold of one. The new sports Douglas? Here at least, there is nothing experimental. A light hog 'bus, with 'light' and 'hog' heavily underlined. Just what so many of us have been wanting. An obvious flier, on sound lines, with one of the biggest motor cycling



Rudge 7-9hp 998cc: "Will somebody please pen a motor cycling parody of the song 'Sailor, beware!' substituting the words 'Injun' and 'Harley' for 'sailor' in verses one and two?"

names on the earth behind it. The big Rudge twin? Will somebody please pen a motor cycling parody of the song 'Sailor, beware!' substituting the words 'Injun' and 'Harley' for 'sailor' in verses one and two'? Sung by Harry Dearth at an MCC dinner, this number would bring the house down, and put WH Wells into his most defiant mood. The Superb Four? Sceptical to the core, I cannot accept Mr Hooper's estimate of 250lb for its weight why, that is only 14lb more than the solo Sunbeam. Still, weight doesn't matter so very much for sidecar work. I deplore the magneto position. £220 is a de luxe price for a de luxe machine. But the technical design is just what anybody who is keen on aero engines had hoped to see. There are plenty of men ready to pay for the best; let this dazzling specification once make good on the road,



Raleigh 698cc flat twin: "I prophesy that it will take a very high place among the elect."

and a large clientele awaits it. In the meantime hearty plaudits to Mr Hooper (and no less to Mr Bradshaw) for offering us a motor cycle lubrication which is as automatic as the action of the liver, ie, you never need think of it until it clogs. Let us commend to other designers Mr Hooper's notion of a motor cycle instrument board—a little fan-shaped aluminium plate just beneath or behind the steering head: it is a million times neater than the usual cross tube between the handle-bars, on which the gadgets are hung out like the week's wash...There was great joy among the fair sex: for are not all the baby two-strokes coming out with clutches and kick-starters? A girl may wear breeches without relishing the jump mount. The New Hudson 'Ace', with its 50mph, is going to remove the reproach of pottering from this class; but there will be much trouble with the police if no silencer is fitted. Are the makers not aware that the two-stroke enthusiast who arrives home at 2am is already classed by his neighbours in the same category as hawkers and barrel organs? Two-strokes want more silencing, not less, the Scott alone excepted. New sports models are plentiful...the knuts were already feverishly oscillating between the Zenith, NUT,



Scott 3 3/4hp Flying Squirrel: "Two-strokes want more silencing, not less, the Scott alone excepted."

Rover, Douglas, and Norton stands...The Velocette was a regular cynosure for hard-riding light-weight men, and the delay in producing the three-speed Levis was a bitter disappointment to many visitors—I can assure the makers that it is eagerly awaited. I understand that the new works consecrated to the production of the big Raleigh flat twin are almost ready. Flat twins are now almost as numerous as bureaucrats, but a special welcome is ready for this excellently designed and beautifully made machine. I marked it down last year as one of the very best machines in the Show, and when deliveries begin, I prophesy that it will take a very high place among the elect. I feel rather like a married man does when he returns to the bosom of his family after an evening at a variety show, and reflects that he winked twice at the prettiest chorus girl. For have I not devoted nearly the whole of my limited space to new machines, which we may or may not see again: and ungratefully neglected those well-tried companions who have made our lives run more smoothly for many a year past. Still, a couple of winks don't matter very much, do they?"



Velocette 220cc 2 1/4hp: "A regular cynosure for hard-riding light-weight men."

"I TOOK A GREAT INTEREST in the weights of 1921 machines at the Show," Ixion remarked, "an interest shared only by those manufacturers who had managed to get inside the 200lb taxation line: the remainder seldom knew or cared what their machines weighed. If my researches were complete, the 4hp Coulson showed the minimum figure (196lb) in the 500cc class, with the solo Sunbeam (236lb) second. I asked the Coulson works manager in which parts he had effected his saving. He instanced the front fork (20lb), the gear box platform (12lb), and the saddle unit (3lb). At the opening of the show, the question of weight was not quite so much to the front as the facts would have justified. The general public are as yet hardly awake to the facts. They have not realised that whether a bicycle weighs 200lb or 201lb makes a difference of 30s to its 1921 tax; nor yet that a three-wheeler or sidecar weighing 894lb pays £4 tax, whereas one scaling 896lb pays the hp tax, which may amount to a cool tenner. Nevertheless, those salesmen whose machines were near either of the border lines had fully tumbled to the situation, and it looked as though a lot of new show cards might be rushed out during the week. Most of the light and mediumweights had been on the scales just before this Show. I am not sure that they were not afraid to weigh some of the bulkier passenger machines."

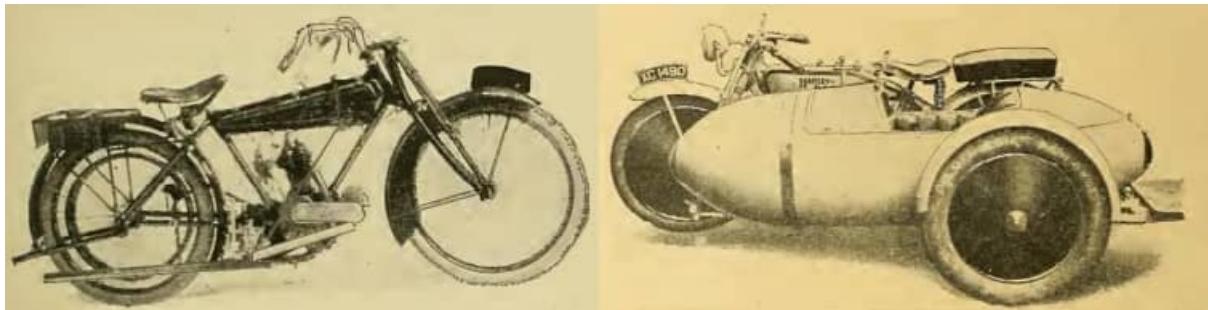
"OLYMPIA IS NOT SUFFICIENTLY LARGE to accommodate all those who desired to display their wares in its spacious hall, consequently not a few items of interest were to be seen in the Hammersmith Road and the surrounding district...The best-known exhibit was that of the Coventry Eagle Motor Co...A wide range of models was shown; the 5-6hp JAP-engined sidecar outfit, fitted with a Sturmey-Archer gear box and chain-cum-belt drive, is an excellent machine following standard lines throughout, but possessing one or two special features. Both brakes are on the rear wheel, that on the off side being of the external contracting pattern provided with a right and left-hand thread adjustment on the brake rod. The other brake consists of a Fibrax-



"Re-appearance of the water-cooled Green engine. It has a radiator embodied with the cylinder. (Right) A twin Coventry Eagle, embodying the 5-6hp JAP engine and Sturmey-Archer gear."

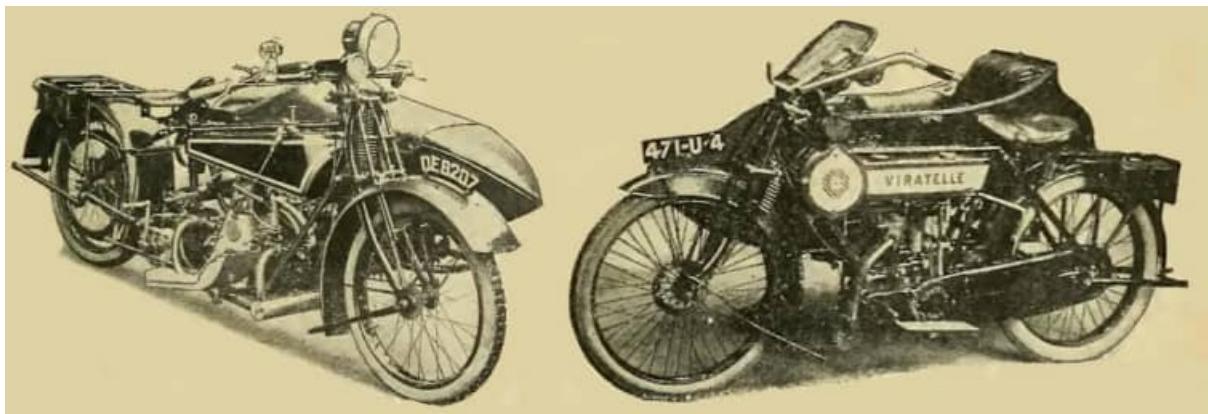
lined aluminium shoe situated on the near side of the machine, and acting on a dummy belt rim. The handle-bars are covered with Bluemel's celluloid. Aluminium, footboards are provided, with rubber rests at their forward ends...An important motor bicycle, which we are very glad to see revived after the war, is the 3½hp Green. Our readers may remember that the Green engine is one of the lightest and most successful water-cooled engines ever fitted to a motor cycle. Water-cooling undoubtedly possesses many attractions when it is fitted it is more easy to keep the engine in tune and more easy to maintain full power on full throttle. The Green engine possesses a cast iron cylinder, over which is pressed a copper water-jacket and honeycomb radiator combined...The valves are overhead...The frame has been entirely reconstructed, and is now built to accommodate a Sturmey-Archer three-speed gear box and 7in mudguards. Two external contracting band brakes are fitted to the rear wheel, in which also is incorporated the transmission shock absorber...Another motor cycle which was on view in the same house was the Ready-JAP. It is an attractive little machine built by Messrs D Read and Co, Weston-Super

Mare. The frame is composed of straight tubes throughout. It is fitted with a 2 $\frac{3}{4}$ hp JAP engine and the best components, and its principal feature consists of a concealed silencer in the end of the long exhaust pipe. This consists merely of two drilled



"A 2 $\frac{3}{4}$ hp JAP-engined lightweight—the Ready. (Right) Volta torpedo sidecar, previously known as the Delta, fitted to a Harley-Davidson."

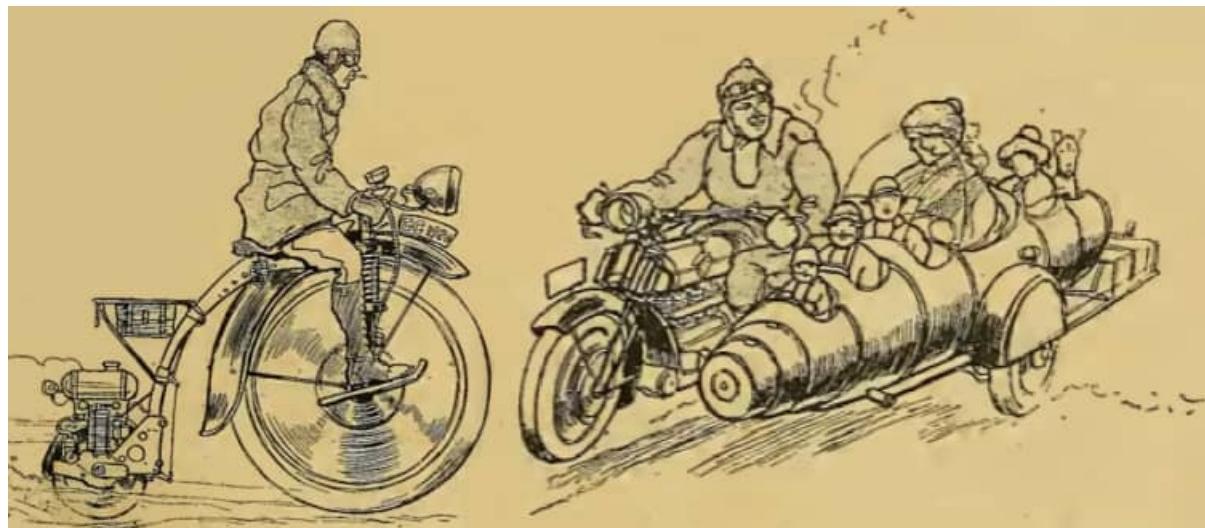
cones, of which the apex faces forward, connected by means of a rod. It is held in position by a grub screw...A machine which is built of standard components, is the Slaney, sold by the Slaney Engineering Co, Olton, Birmingham. Its motive power is a Coventry Victor engine, modified by the company so as to get a better chain clearance by moving the carburettor on to the near side, and placing the exhaust pipes on the off side...Other features are a very large tank, wide mudguards, and the specially strengthened luggage carrier...at Messrs Burts Motors, 245, Hammersmith Road, several models of the French-made Viratelle were to be seen. No one can accuse this machine of being out of date. It is a machine which has been thoroughly thought out from stem to stern. The single-cylinder has a bore and stroke of



"A big flat-twin Slaney, with a Coventry Victor engine. (Right) French Viratelle water-cooled two-cylinder outfit. Observe the peculiar radiators on the front end of the tank."

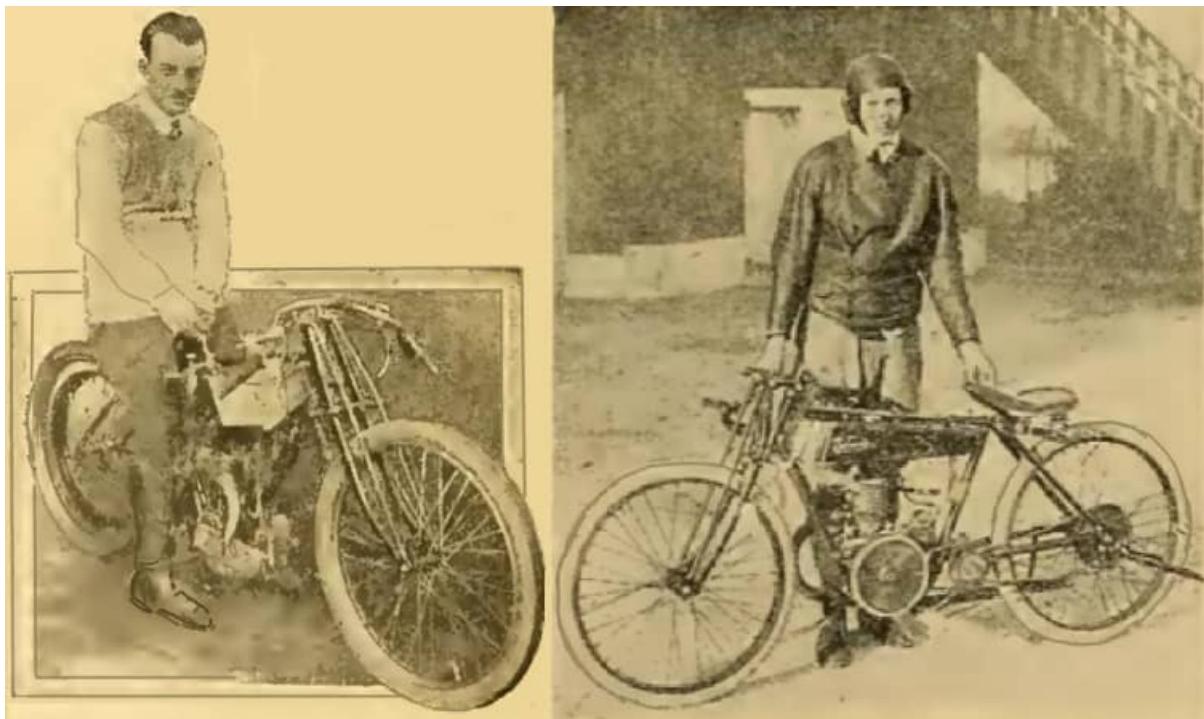
73x82mm (350cc). Both valves are enclosed, and are situated at the rear, while the whole of the transmission is entirely protected. Behind the engine is a three-speed epicyclic gear box. The gears are selected by a lever on the handle-bars, while the clutch is engaged either by the pedal provided or by the handle-bar lever. Water-cooling is arranged on the thermo-syphon principle, the radiator being carried behind the front forks. Between each portion of the radiator is a fan driven by means of a flexible shaft from the magneto drive. The forks are not without interest, as they are hinged at the fork crown, and are provided with laminated springs which act both as fork springs and as girders. Knock-out spindles are provided to each of the wheels...Control wires pass through the handle-bar tubes, which are finished in black. A similar machine was also shown to us which was fitted with a two-cylinder engine with the cylinders arranged side by side...Several sidecars were to be seen outside the building. Among these we may mention the

Delta, now known as the Volta...The sidecar is best known for its luxuriously fitted and elaborately equipped projectile-shaped body. It is sold by the Volta Sidecar and Accessories Co, Manor Park, London, E12.



Having filled his notebook with sketches of technical innovations spotted at Olympia, *The Motor Cycle's* artist was allowed to indulge himself with some flights of fancy, including a telescoping sidecar for the enthusiast with an expanding family and a motorised penny-farthing.

"NO DOUBT IN THE EFFORT to secure effective Show advertising, records in the lightweight classes were broken with bewildering rapidity during last week. First came JV Prestwich, who, mounted on a side-by-side valve JAP-engined Diamond...succeeded in raising all the 250cc and 275cc up to 50 miles another notch; on the opening day of the Show he made new figures in the same classes for all distances, and times up to 250 miles and six hours respectively...DR O'Donovan, past master of extracting speed from whatever he rides, brought out the hush model 63x80mm (249cc) Velocette, and proceeded to add an extra 3mph to the flying kilometre speed. The performance is a remarkable one and is really epoch-making, in so far that it is the first two-stroke machine to break a short distance ultra high-speed record, although a machine with this type of engine has already made a successful onslaught on the long distance figures." During his record breaking stints JV Prestwich covered the flying kilometre at 63.91mph and completed 50 miles at 55.81mph. Wizard O'Donovan raised the flying kilometre figure to 66.97mph.



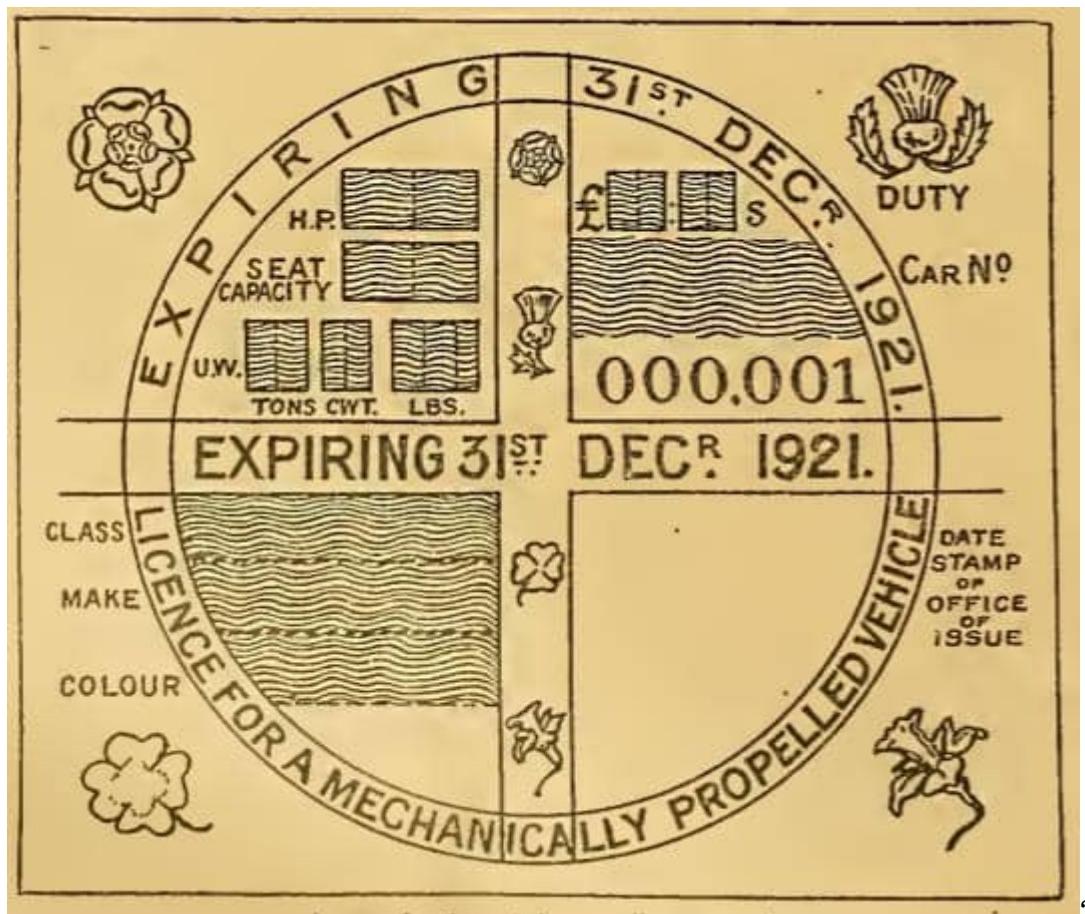
"JV Prestwich, who, on a 2½hp Diamond-JAP, broke the flying kilo and flying mile records, and also International records, at Brooklands." (Right) Wizard O'Donovan broke Prestwich's flying kilometre record on the 'hush' 250cc Velo.



"Are you all right?" It is safe to say that every motor cyclist who, some time or another, has stopped to effect a repair or adjustment, has heard this familiar question from a fellow rider. It is a courtesy which has done much to build up the brotherhood of the highway."

FURTHER DETAILS OF THE NEW LICENCES: The whole scheme was explained to members of the press by two experts of the Ministry of Transport one day last week and those attending were invited to ask questions. It was interesting to observe that the majority of those present were quite incapable of asking for intelligent information concerning the new taxes, as they were clearly not practical motorists. Every possible facility was given to the press, and questions

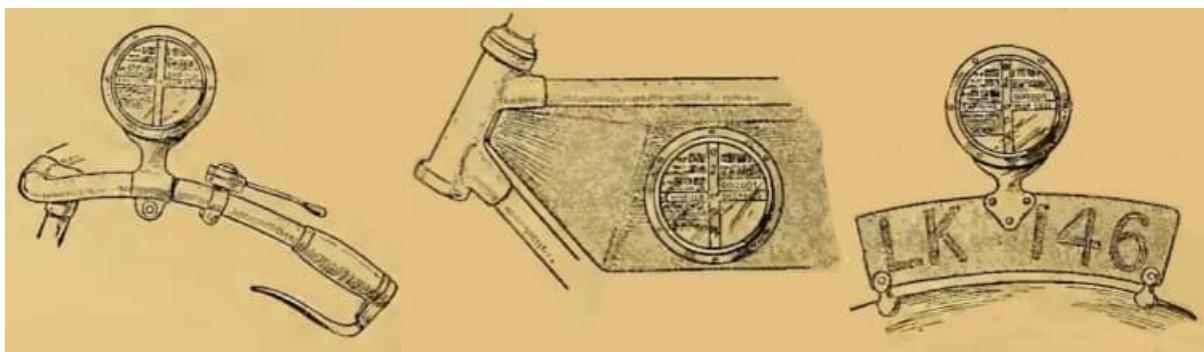
were answered as clearly as possible, but naturally in a somewhat indefinite manner, as nearly all Government regulations are somewhat indefinite, the attitude being that the Government makes the law, but it is not its business to interpret it. We first naturally asked for information concerning the weights of motor cycles. Would machines have to be weighed before being registered? Would a maker's certificate be accepted, or



"A

reproduction of the new licence card."

would the owner's word be taken? The official then courteously explained that a maker's statement would be accepted, and in most cases the owner's word. The officials would have a fair idea of what certain machines weighed, but in the case of any doubt the applicant for the licence would be asked to prove his statement. We next interrogated the official on the question of accessories. Were they or were they not included? The answer was, as forecasted, that the weights will be less fuel and oil and loose accessories, such as horns, lamps, dynamos, speedometers, watches, clocks, badges, and tools. It was also stated that the exact definition of 'weight unladen' has not yet been decided...As is now the case with the local taxation licence, the new licences (which, of course, include the registration) will be obtainable at any Post Office issuing money orders, and the declaration form will ask for all particulars necessary for registration...After the forms have been filled up two documents are issued, which are the licence card and the licence registration book. This latter is to be kept at home, and contains a history of the vehicle from January 1st, 1921, and onwards. It was especially emphasised at the meeting that, whereas



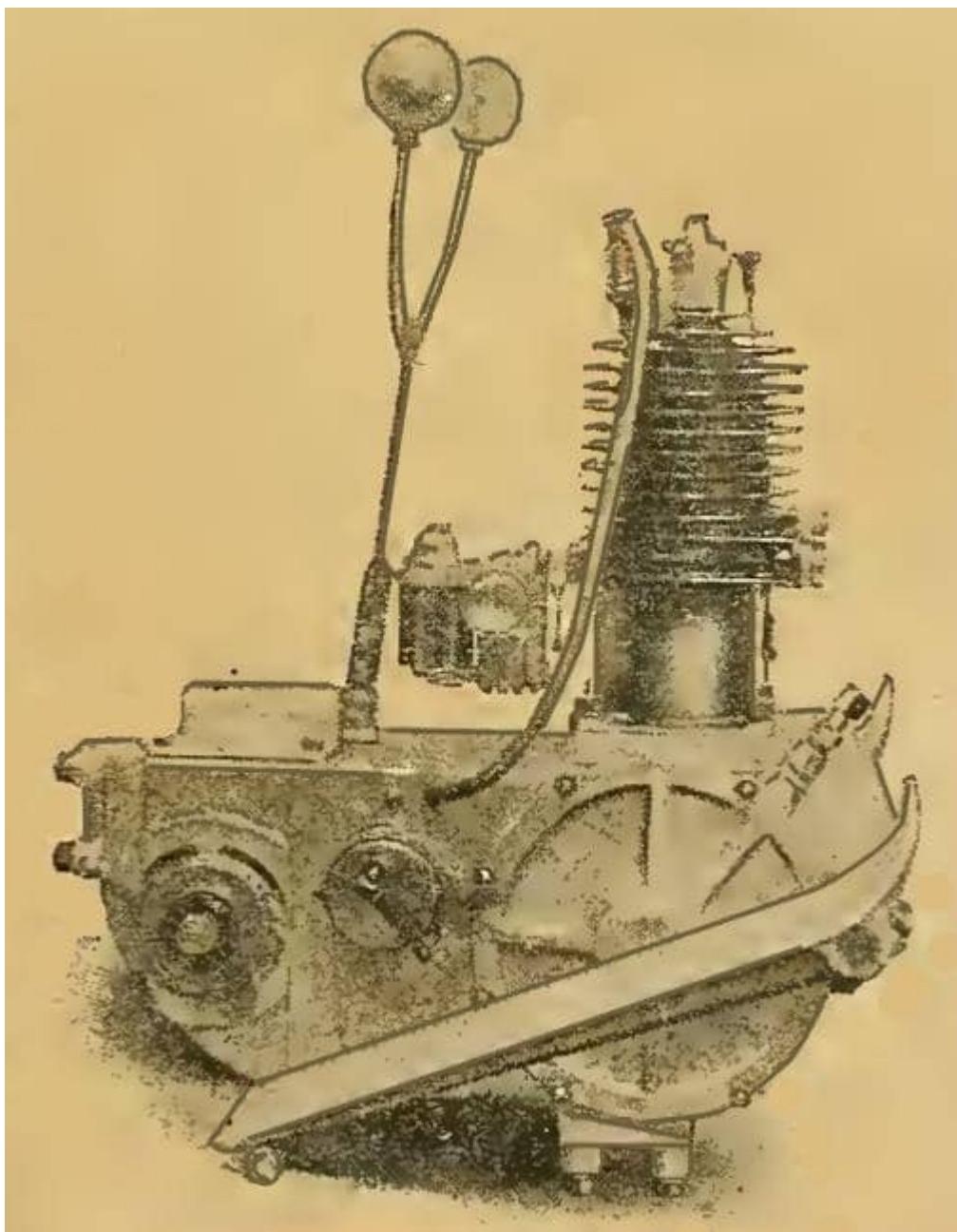
"Suggested methods of displaying the licence."

the present local taxation licence entitled a man to keep one motor vehicle and is of the same nature as a dog licence, not being transferable, the new licence belongs to the vehicle and goes with it. Change of ownership and particulars of sale must be entered in the log book and sent to the local authority. Weight unladen not exceeding 200lb, £1 10s. Weight unladen not exceeding 200lb, with right to draw trailer or sidecar, £2 10s. Weight unladen exceeding 200lb, but not exceeding 8cwt, £3. Weight unladen exceeding 200lb, but not exceeding 8cwt, with right to draw trailer or sidecar, £4. Tricycles not exceeding 8cwt, weight unladen, £4. Part year licences of one-half the full rates are granted in respect of motor bicycles and tricycles first used on or after October 1st of any year. If the motor cycle is already registered a second part of the form must be filled in, on which must be stated the registered number, the nature of the vehicle, if used for a sidecar, the manufacturer's name, type or model of vehicle, manufacturers' horse-power, and the weight unladen...In the course of the proceedings it was mentioned that the money collected from the duties, together with the existing horse carriage licences, would be collected by county councils, county boroughs, or borough councils under the supervision of the Ministry of Transport, and will be devoted to the maintenance and improvement of the roads. Licences need only be taken out in respect of vehicles which are actually in use."

THE NEW TAX RULES WERE to have a profound effect on vehicle ownership, as Ixion was quick to appreciate: "In the golden days of yore the super-knut was wont to keep so many motor cycles that impudent and envious friends used to accuse him of trying to breed them. You cross a Morgan Runabout with a WD Triumph, and get a Baby Levis free gratis, or something of that sort. At any rate we used to send our staff panoramic camera down to some moated grange, and come back with a view of the machines owned by J Doree, Esq, of Ch Ch, Oxford—the resultant block would stretch across a double page of *The Motor Cycle*. Never again. These new licences, which you pass on when you sell a machine, have stopped all that. One of our staff, who mingles motor cycles with small car work, calculates that his 1920 mounts would have cost him about £75 in licences at the 1921 rate." And then he waxed lyrical over the latest sidecars: "In the old days the gallant male got himself well and truly perforated in the jousts because another male had commented adversely on the shape of his fair lady's nose. To-day the gallant male bores into a hailstorm on Dartmoor exposed like a weather-cock on a church spire, whilst his lady love snuggles down into a capacious sidecar, fortified by an all-weather top, which prohibits alike any exchange of conversation or passing of chocolates."

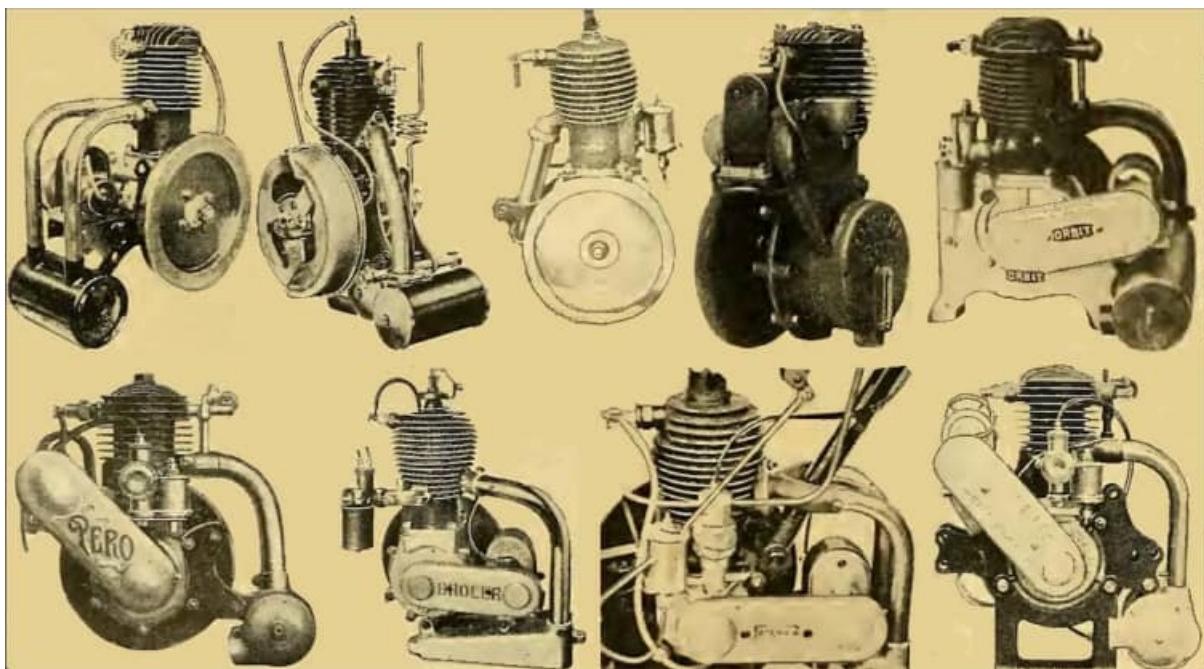
"A VERY NEAT TYPE OF unit constructed engine and gear box for motor cycle use has been produced by the Ballot Cie, of Paris. This firm has specialised for a number of years in engines for car use, and supplies these for a large number of manufacturers both in France and abroad. The adoption of a power plant for motor cycles is, however, of recent date. It is understood that the whole of the present production has been secured by one of the leading French firms for

their new types of machines; other firms, however, will adopt the Ballot engine as soon as production increases. The engine is a single-cylinder air-cooled two-stroke, mounted on an aluminium crank case. A valve is mounted in the cylinder head, but this is only used to relieve the compression, and allows the machine to be ridden without interfering with the carburetter and ignition controls. Crank case compression is employed, and the aluminium piston is fitted with a deflector. Ball bearings are fitted for both the crankshaft and the connecting rod big end. The crankshaft is of the built-up type, consisting of two full discs united by the crank pin, which has conical ends fitting into the discs. One of the features of this engine is the enclosed magneto, only the distributor of which is outside. Magneto drive is by means of a roller chain, naturally enclosed. A metal disc clutch, working in oil, is used, and there are two speeds operated by lever with forked arms, so as to encircle the tank and horizontal tube of the machine. With the exception of the pulley or sprocket for the final drive, there is not a single exposed working part on the Ballot engine. Even the kick starter is enclosed, and is operated by means of the right-hand footboard...It is interesting to note that the majority of French motor cycles are fitted with engine and gears constructed on the unit system, and the Ballot product adds another example to the list. The Bleriot and Louis Clement machines may be cited as excellent examples of unit construction, especially the latter, in which case a clutch and three-speed gear box are combined with an original design of twin-cylinder V type engine, having shaft operated overhead valve gear. Many capable engineers consider that unit construction will be adopted eventually in this country, though at the present moment British examples could easily be counted on the fingers of one hand."



"The Ballot

two-stroke engine and gear unit, embodying an enclosed magneto. The gear change is effected by the knees of the rider by means of a double lever."



Britain wasn't short of proprietary two-stroke engines: Endurance, 269cc, Endurance Cycle Co, Birmingham; Villiers, 269cc, Villiers Engineering Co, Blakenhall; Wall, 269cc, AW Wall Ltd, Birmingham; Precision, 348cc, FE Baker Ltd, King's Norton; Orbit, 261cc, Orbit Engine Co, Wolverhampton; Pero, 269cc, Pero Engine Works, Birmingham; Broller, 349cc, Brooks & Tranter, Narborough; Arden, 269cc, Arden Engineering Co, Berkswell; Dalm, 318cc, Dalman & Sons, Birmingham.

IN A SPEECH AT THE BMCRC Brigadier-General Sir Capel Holden KCB, FRS, remarked "...it was twenty-five years since he first rode a motor bicycle (referring to his original four-cylinder). He had invited the late Mr HJ Swindley (of The Autocar) to come and see it, and he rode it and expressed himself very pleased wth it, but frankly admitted that he could not understand why any body should want to ride a motor bicycle, as pedal cycles were for pleasure and exercise. General Holden was a firm believer in the motor bicycle, and he looked to its further development. He sincerely hoped to see an all-weather machine, in which both the mechanism and the rider were fully protected." The general must have been gratified when he opened the next week's issue of *The Motor Cycle*...

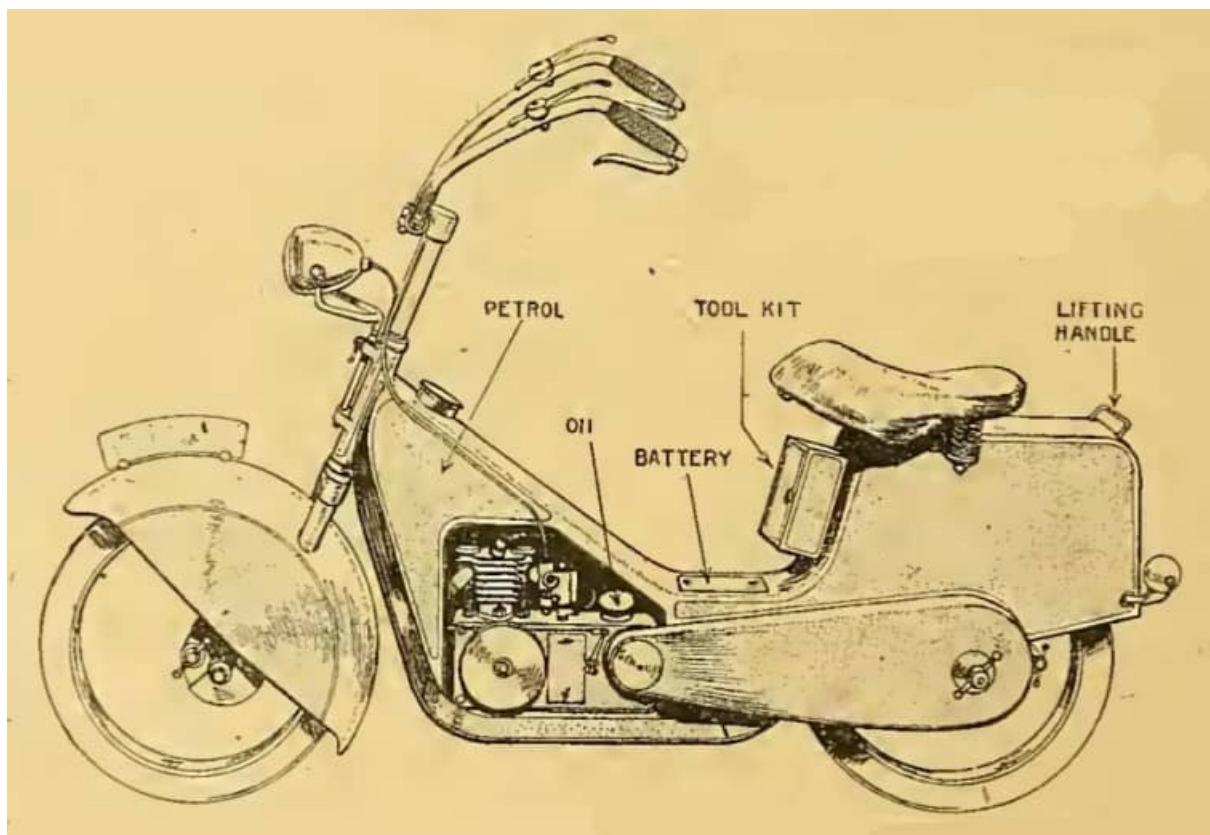


THE IDEAL MINIATURE.

Some Considerations of Design in a Lightweight Motor Cycle for the Fair Sex and the Elderly.

"IN CONSIDERING ANY DESIGN for a lightweight in the future, it is almost a certainty that the lady cyclist will have to be catered for to an equal, extent as the other sex. This is a fact which becomes all the more patent after observing the big increase in lady drivers of motor cycles...The average machine, although reliable, requires a certain amount of physical effort in its use, being rather heavy for the average woman or elderly person to lift about... To appeal to the large potential market waiting for the advent of a more suitable machine, it should have the following features: Low price, low weight, low riding position, an open frame, enclosed power

unit and transmission, perfect mudguarding, freedom from wrist and arm vibration and accessibility...Speed should be no criterion at all, 20mph probably being the maximum required at any time, but an ideal lightweight...would have to climb any hill under its own power...It remains, then, for a lightweight machine to be evolved which shall be something of a hybrid between the scooter and the ordinary motor cycle, with comfort, low weight, and manageability as prime features introduced in the design. In the illustration an endeavour has been made to embody such features...A 2hp single-cylinder four-stroke engine is proposed, having a T head, outside flywheel incorporating magneto, single-lever carburettor, and the crank case, which is in the nature of an oblong aluminium box, is extended rearwards to carry a small countershaft two-speed gear unit. Incidentally, this case acts as an oil container for both engine and gear unit. The object of forming the engine and gear unit as a whole has been to bring all the essential motive parts together and simplify design and construction, and when overhauling is necessary, to enable the whole engine and gear box to be withdrawn en bloc from the frame. No clutch or kick-starter is incorporated as these features, although no doubt desirable from the point of view of convenience and ease of handling, are not absolutely essential, and their elimination from the design tends to reduce complication and manufacturing costs...Perhaps one has only to suffer from some infirmity to realise that the majority of machines at present on the market offer no attraction for those people who are physically weak and incapable of handling machines seemingly built for the strong and sturdy, but who at the same time just as ardently desire the delights of motoring and its wide possibilities."

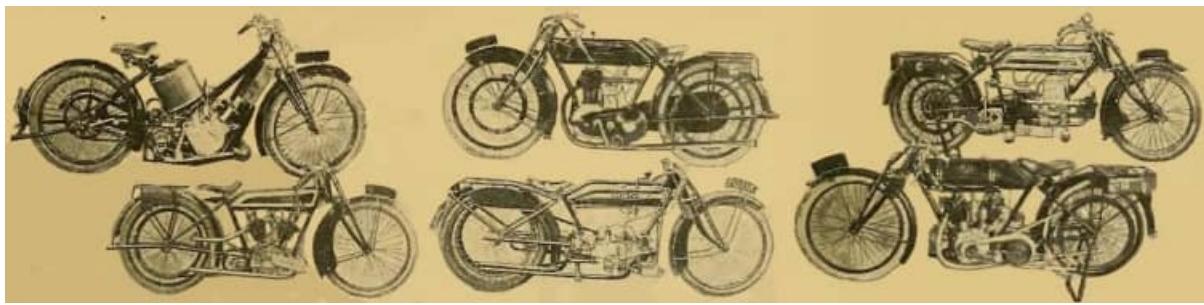


"A proposed layout for an ideal lightweight machine, showing the engine and gear box uncovered. It should particularly appeal to ladies and elderly people."

...and now for something completely different:

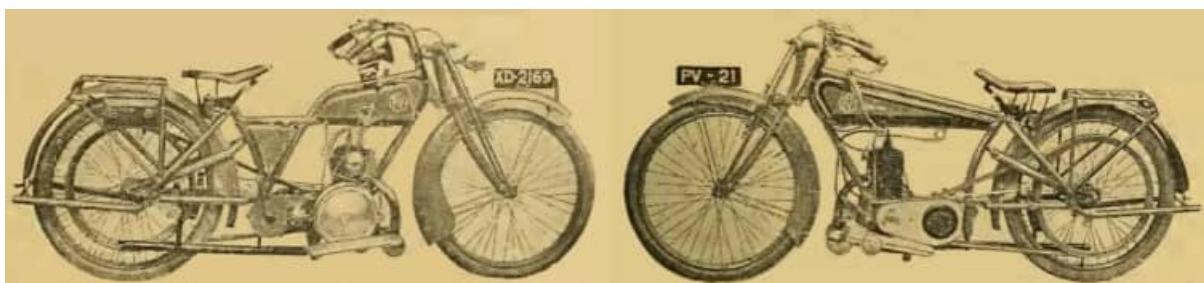


"OF LATE YEARS THE SPORTING SOLO motor cyclist has, with some justice, complained that his interests and tastes have been neglected in the rush to cater for the family man, and the family man's family. One by one sporting mounts have been strengthened, enlarged, and developed generally as machines intended for sidecar work, but which could also be used solo. The solo enthusiast who requires something more than a lightweight has, however, been insistent in his demands, and so 1921 brings a change. A list of purely solo machines with a sporting, as distinct from a utilitarian flavour, now includes some of the most famous names in the industry...the 4hp Triumph is not included; although it is one of the most popular mounts on the road and seldom need remain long in anybody's dust, speed is not the main reason of its existence (The single-speed T.T. model is not listed for 1921.)...the Norton deserves special mention. This efficient long-stroke single, with direct belt or Phillipson pulley drive, forms a combination of which only those who have ridden it can realise the fascination. With all-chain drive and countershaft gear box, the No 16 Norton is also a fine example of the 'go anywhere sports' type. Speaking without statistics, more leather helmets are worn by Norton riders than on any other two makes together! Another belt-driven machine, the TT Rudge-Multi, although of fairly heavy build, is also essentially a sportsman's mount, and, with its pulling engine and high range of gears, it can get away from most machines of its class in the average friendly 'blind'. A redoubtable trio is completed by the inclusion of the TT Rover, now offered as a specially tuned speed model. Of twins there are a few. Not often fitted with touring bars, the 3½hp overhead-valved Brough may be obtained in one case with a guarantee of 60mph—which, for a countershaft machine, is a striking figure. Another very high efficiency flat twin is the new sporting DougJas, either in its 2¾hp or 3½hp guise. Here, too, overhead valves, lubrication, and combustion head are designed for maximum power output. As an indication of what we may expect,



Six of the best knuts' delights: Scott Squirrel, Sunbeam TT replica, ohv Brough, ohv Dot, "the sensational Bradshaw Zenith", six-valve TT model NUT.

the 2½hp-engined mount has already annexed both sidecar and solo hour records in the 350cc classes at Brooklands. Last year, despite a very complete equipment, the NUT was primarily a solo mount—and a fast one at that, but for 1921 the Newcastle firm has gone one better. The new six-valved twin is designed from steering head to rear hub on 'hot stuff' lines, and the racing experience of the designer should ensure that it comes well up to high expectations. In appearance it is perhaps the most taking machine of its class on the road. Also hailing from the north (if Manchester permits the designation), the two new solo Dot-JAPs have the lines and the low weight that go to make up the 'nippy' machine. The 3½hp twin only weighs 196lb, and certainly promises to move. The makers of the Scott, too, are entering the lists with a genuine TT product, very appropriately named the Squirrel. Weight here has been cut down to a minimum (even the carrier has gone), but strength has not been sacrificed. And if the new Scott fails to get there by sheer speed—and, by the way, the maximum figure here is somewhat of an eye-opener—it will certainly get round a hairpin in less time than it takes to write about it. Sunbeam performances in the TT augur well for the sporting model of that ilk—where again Antipon methods have been resorted to [Antipon was a well-known weight-loss tonic]. A carrier and fairly ample mudguards are, however, retained, but an aluminium piston strikes the right note of the 'revving' engine. Lastly, we have the new Bradshaw-Zenith. Both names indicate much to the enthusiastic follower of efficiency design: and the resultant product of the combination does not belie the hope. Yet untried against other machines, this super-scientific design cannot fail to figure largely in competition results next year. There are others, too—many others, which are just over the border line of our self-imposed classification of 'the purely sporting'—but, amongst those we have given, the solo enthusiast may spend many a pleasant hour deciding which is to carry his colours to victory. And what a scramble it will be round the Island in 1921.



The PV, powered by a 2½hp Villiers two-stroke, was one of the few lightweights to boast rear suspension (in this case a leaf-sprung cantilever set-up, lauded as "one of the earliest and most satisfactory forms of rear springing yet devised"). Other equipment included a QD rear wheel and a flywheel mag. The drop-frame version was one of the few ladies' models with rear suspension; the ladies' version also came with a clutch and kick-start. "Both models are fitted with Brampton Biflex forks which, combined with the rear springing, provide a degree of comfort not often found on so small a machine."

“THE LAST NIGHT OF THE SHOW: Sir,—With reference to the Motor Cycle Exhibition which has just been held at Olympia, I should be glad if you could find space in your valuable paper and put on record the protest of many exhibitors as to the infernal pandemonium created by various irresponsible assistants towards the end of the Show. It is surely known that this sort of thing is distinctly forbidden in the agreement of the exhibitors, and I think that the Society should see that this rule is not flouted. This year the blowing of horns started soon after 8pm, when there were still visitors trying to get information with a view to purchasing; and personally I can say one such visitor left our stand and quitted the building disgusted. Certainly he said he would call at our works; but will he? Further, I think it is disgusting and insulting to the orchestra, who were doing their utmost to render good music. I think it a duty to write this, as I have attended every Show from 1899 onwards in this country; and I think we can take it that the exhibitors are there for business, and not obnoxious foolery. Certainly, as every Exhibition ends, the matter gets worse and starts earlier. I am not a kill-joy, and if the last hour finishes up in a social and dance it would be pleasant, but I should be very sorry to see our splendid Exhibition drop down to the level of a ‘penny gaff’ or Mitcham Fair.

John J Leonard, The Bat Motor Manufacturing Co.”

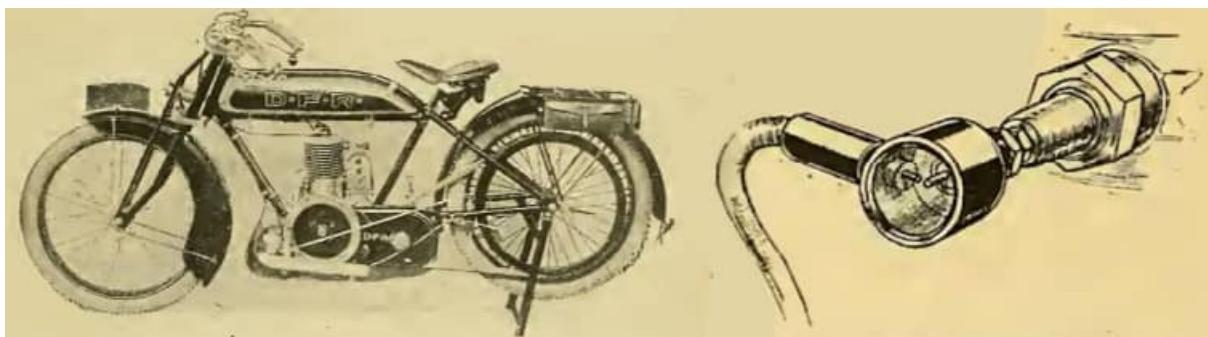
“SPEED WOBBLE: Sir,—As a constant reader of your interesting paper for the last five years, I should like to claim a little space to express my views regarding speed wobble. I may say that I am an experienced rider, and have done a lot of motor cycle racing in this country, but I cannot understand why a number of your correspondents ‘spill’ as soon as they get a bit of a wobble on. I have had wobbles at all speeds up to and over 80mph, but have never had any difficulty in overcoming them. Here in New Zealand all the racing is done on unbanked grass race-courses laid down for horse racing, and, although one or two of them are fairly smooth, the majority are so rough that the front wheels of the faster machines lift from anything from a foot to eighteen inches off the ground at the worst bumps. When they come to earth again ‘speed wobble’ is generally the rule, but for all that I have never seen a rider spill from that cause. That speeds of 60-70mph are impossible off the track, as stated by your correspondents, appears to me to be utterly ridiculous. On the road I have done 65-70mph with both Indian and Harley-Davidson, both in really good running order, but neither specially tuned; and I have turned up 78mph (timed and speedometer) with a well-tuned four-cylinder Henderson, also on the road. This machine would do over 70mph before it was tuned up. Contrary to what I have said in the last paragraph, I have never had a sign of a speed wobble on the road, and have seen a boy seventeen years of age riding an Indian over a smooth piece of road at over 60mph with his hands in his pockets. Perhaps some of your readers will be interested in the speeds that are put up in New Zealand on the unbanked grass courses. Some of them are: Flying mile, 49sec, equal to a speed of nearly 73mph; fifteen miles (standing start), 13min, or an average speed of 69mph. These times were put up by P Coleman on an eight-valve Indian on the Takapuna Racecourse at Auckland, which is the best in New Zealand for motor cycle racing. The mile record for singles is 57sec, done by a four-valve 3½hp Indian.

NR Souter, Cambridge, NZ.”



"A family of practical riders. The producer of Ivy motor cycles, Mr SA Newman (second from left), with his four sons. Howard C (third from left) is the designer of the Martinsyde-Newman engine, while Percy (fourth from left) is responsible for the 3hp Ivy two-stroke. All are mounted on Ivy machines."

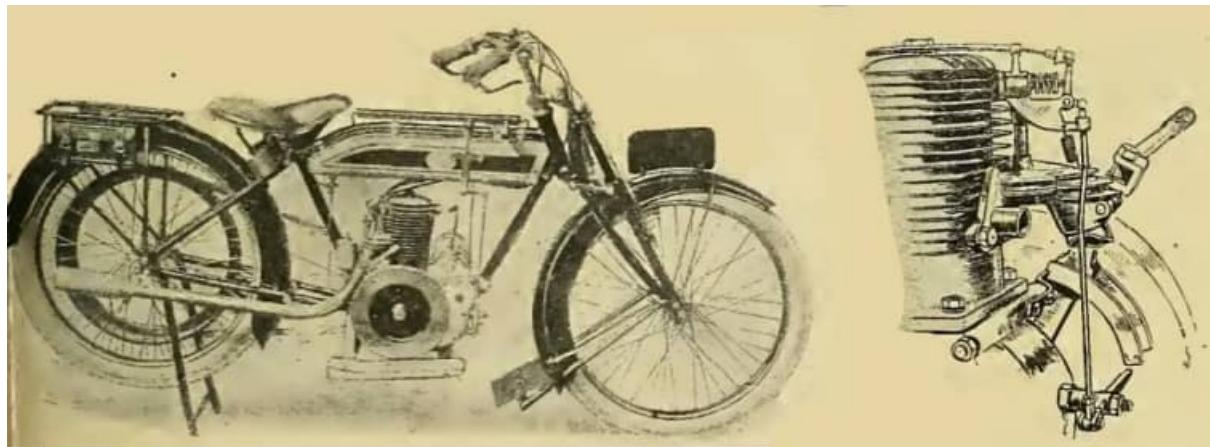
"NO FEWER THAN 24 MAKES of British motor cycles are exhibited at the Brussels Show...This number is more than all the representatives of other countries put together. Of the balance, three are Belgian, seven French, seven American, and one Swiss, making a total of 42. In addition, many British makes of sidecars are exhibited, like the motor cycles, by the Continental agents of the firms concerned. Belgium has been associated with the motor cycle from the earliest period in its history, and motor cyclists owe this brave little country a great deal, as its early productions had a very distinct effect upon design generally, and helped to accelerate the evolution of the modern British mount. It must not be forgotten that the first motor cycle engine produced in quantities, and equipped with mechanically-operated inlet valves, was the Minerva, hailing from Antwerp, which appeared in England in 1902, and right up to the outbreak of war a large



"A pleasing French two-stroke design—the DFR. (Right) A novelty on the DFR two-stroke—visible spark gap."

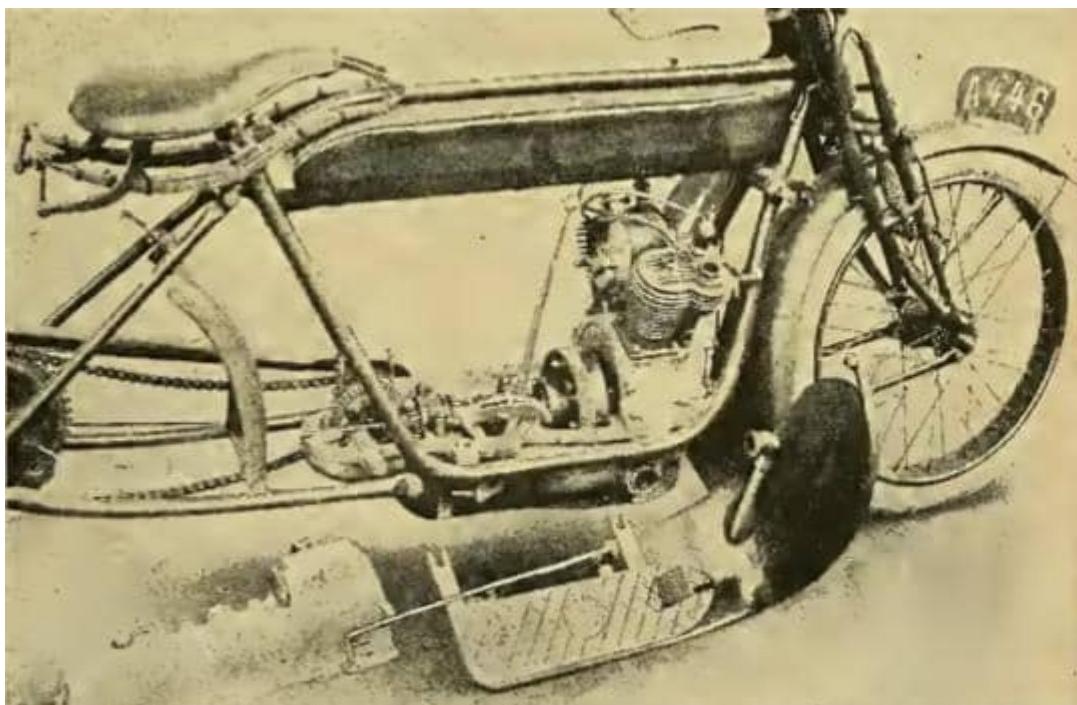
number of British engine makers obtained their cylinder castings from Belgium. At the present time there are two distinct schools of thought among Belgian motor cycle manufacturers. There are those who have slavishly followed English ideas and those who have slavishly followed English ideas and those who struck out original lines. One of these latter is the Société

Anonyme Ateliers Spring Streupaz-lez-Liège. The Spring is made in two twin-cylinder models—the 3½-4hp (500cc), and the 6hp (750cc). Perhaps the chief feature of the design is the position of the V-twin engine, placed transversely in the front end of the duplex frame. The cylinders are set at 50°, and have side-by-side valves



"Gillet two-stroke lightweight in which engine and gearbox are combined. (Right) The kick-starter and decompressor of the Gillet are interconnected."

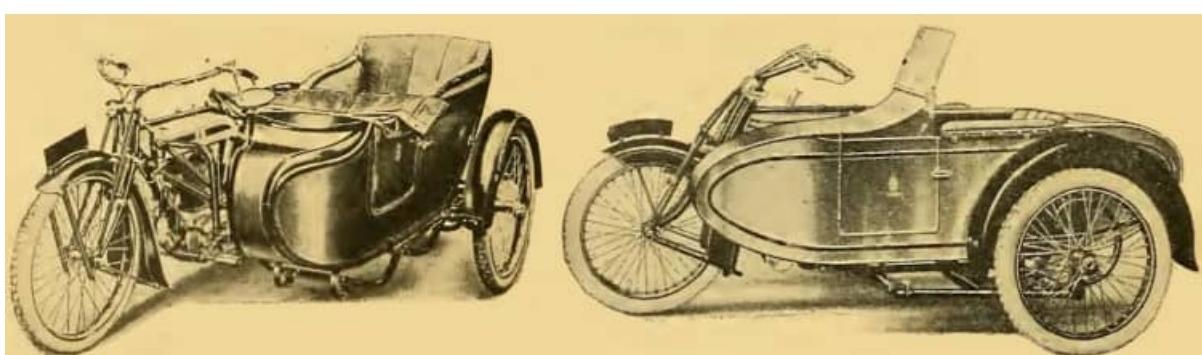
facing forwards...In the 750cc model there is an ingenious spring coupling between the flywheel and gearshaft, all shocks to the chain and transmission being absorbed by the laminated springs against which the coupling dogs abut...The other Belgian made motor cycle which struck out on original lines kept and improved upon them year by year is our old friend the FN. The four-cylinder model is equipped with an FN sidecar of handsome design, with the sidecar wheel enclosed by vertical and horizontal forks...Among the two-strokes may be mentioned the DFR, a French machine...The engine is the well-finished 309cc Train...it follows British practice, having chain-cum-belt drive, Burman two-speed gear box, Saxon forks (made under licence) and petrol lubrication. One interesting feature was the visible spark gap embodied in the high-tension terminal. The machine is shown in two forms, as a sporting and as a touring mount, and in the latter form it has an excellent under-shield which protects the chain and other working parts. The Train water-cooled two-stroke engine and an air-cooled twin-cylinder of 6hp were also shown...Probably the most interesting two-stroke in the Salon is the Gillet, made by the Societe Anonyme des Ateliers Gillet...The three-port engine follows a tendency which is becoming increasingly popular, in that it forms a unit construction with the gear box...The kick-starter arm is behind the flywheel, and has a folding pedal, which, when extended, projects clear of the flywheel rim...Among the Belgian machines to the makers of which England is without doubt in debt owing to their lead in the



"Gear-

box cover removed from the unconventional S Spring. Observe the toothed ring used to circulate the lubricating oil."

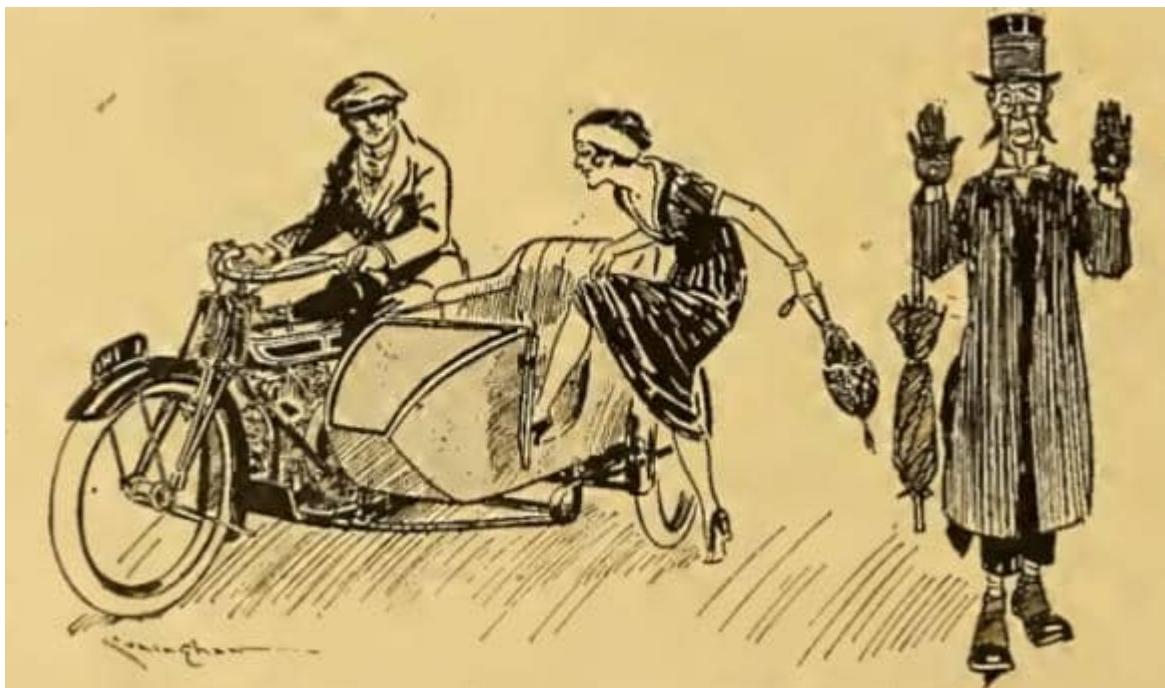
industry in 1902, mention must be made of the Sarolea made b.y La Maison Sarolea of Liege. The firm started at the very beginning of the movement as manufacturers of engines, and many excellent examples of their products were in use in this country on machines of well-known make. The 4hp Sarolea has a single-cylinder engine (85x97mm), the best English fittings, and is altogether English in design and equipment, particular attention being paid to comfort and convenience. A totally new model is fitted with all-chain drive, Sturmey- Archer three- speed gear box, and an engine provided with a detachable cylinder head, which, we are told, is not only a convenience for decarbonising, but it has a tendency to keep cooler than the one-piece cylinder casting...the Bleriot is an interesting machine with two-cylinder vertical unit engine and gear box which made its debut at the 1919 Paris Salon. The Bleriot sidecar body is shaped like a submarine's hull, and it is interesting to observe that this design is even retained in the tradesman's carrier."



"Sidecars of 'big singles': Distinctively different, the Norton and the Triumph sidecars are both excellent examples of good body design. The immediate and most striking feature of the Norton sidecar is its clean design and symmetrical appearance. (Right) One of the most popular of the single-cylinder sidecar outfits—the 4hp Triumph."

"THE EXHIBITION OF A WOMAN getting into a sidecar is often anything but an attractive sight. Frequently her efforts end in a scramble, and there is a great likelihood that they will be unavailing without assistance—if she is wearing a fashionable skirt of 1920 Anno Domini. Some sidecars have no door at all, while others have a door about the size of a small pocket handkerchief let into the top of the side panel. To enable a lady passenger to get into a sidecar easily and gracefully, the door should be wide enough, and the opening low enough to enable her to step up comfortably from the ground, or as an alternative a conveniently placed step should be provided.

Marion Dawson."



"...frequently her efforts end in a scramble, and there is a great likelihood that they will be unavailing."

"THE COMMONWEALTH OF AUSTRALIA has increased its offer of a reward for the discovery of petroleum oil in commercial quantities from £10,000 to £50,000."

"ALL-WEATHER RIDERS: There are always a good number of machines at the Editorial back door, and the recent severe weather has not reduced that number."

"A MEMBER OF *THE MOTOR CYCLE* staff, whose daily mileage between home and office is about twenty miles, reports that, while several cars have been seen unable to proceed over the ice-bound roads, not once has he observed a motor cycle in similar trouble."

"MOTOR CYCLISTS SHOULD NOTE that in certain districts, and particularly between Rushden and Wellingborough (Northants), the police are active in regard to motor cycles not fitted with two brakes. In Fenny Stratford the police are insisting that the 5mph limit be observed."

"TO COMBAT THE EXTRAORDINARY crime wave which at present is sweeping New York, the Police Commissioner has placed eighty motor cycles and sidecars at various points in the city in readiness for instant action. The mobility and speed of the sidecar should prove a big advantage where a gain of seconds means so much."

"The new registration books: Each motor cycle is to have a 'dossier' which is not to be kept on the machine—motor cyclists will have a registration book consisting of a manilla board folder making eight pages." From January 1st 1921 every motor cycle would have a logbook.

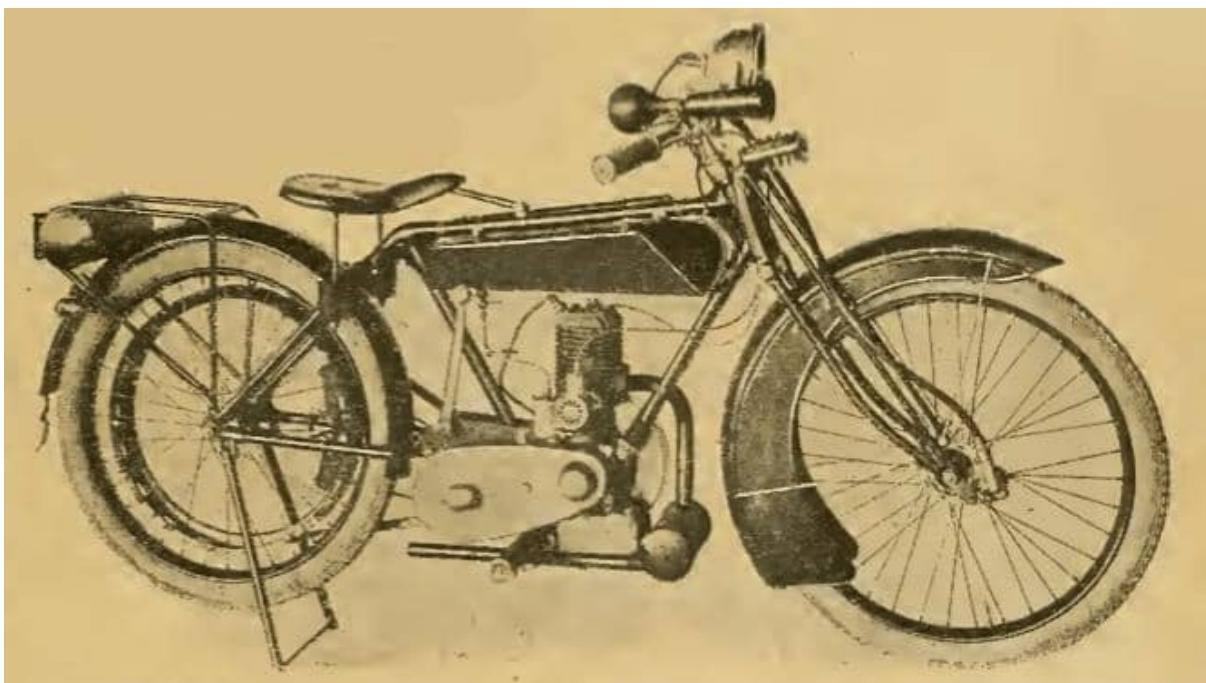
"Mr George Brough, whose performances in many trials, notably the Scottish Six Days, are well known to most motor cyclists, decided, some months ago, to specialise on a super sporting machine, and informed us at that time that it was his intention to produce a fast, light, and well-equipped motor cycle, which should include all necessary fittings, but no fancy attachments, and attachments...we have never examined a more sensibly equipped big twin solo mount...really wide guards, with deep valances, are included...The popular 90x77mm (979cc) ohv JAP engine has been specially redesigned to suit the requirements of Mr Brough...each will be guaranteed to do from 8-80mph in top gear...A well ribbed cast iron port is screwed on to each exhaust outlet, taking the place of the usual exhaust pipe nut and the curves necessary to avoid the frame tubes are smooth and easy. From these ports pipes lead to a large two-piece aluminium silencer placed forward of the engine and below the magneto; from this silencer a tail pipe extends rearwards...Compactness characterises the frame-work, and, by means of careful design, it has been found to be possible to house the big engine in a machine having a wheelbase of only 55in, and a saddle height of under 30in." Equipment included an Amac carb, three-speed Sturmey-Archer box, Enfield-type rear-wheel shock absorber, 2½gal saddle tank and Brampton Biflex forks.



"A big twin designed for solo work, the 8HP OHV Brough-Superior, which has a large plated tank. Usually with an ohv engine the exhaust pipes are very prominent. The Brough-Superior is

exceedingly neat in this respect. A cast aluminium inlet pipe with cone and nut air leak preventers. The handle-bars form a unit with the head clip. The saddle tank has no flats or corners; it is plated, and has a black top panel, and hexagon top filler caps are fitted. A strongly webbed casting is employed for the head lug, which is formed in a single piece."

WHEN SOPWITH AVIATION CO went bankrupt Tommy Sopwith teamed up with Sopwith test pilot Harry Hawker to form HG Hawker. Yes, the same Hawker that went on to produce the Hurricane, Hunter and Harrier. But their first product was a well thought out 262cc two-stroke "The ideas followed in building the Hawker have been cheapness of production, solidity, simplicity, and of course low weight...the machines weighs but 165lb including all accessories and fuel. The crank case and cylinder are in one casting, but on the flywheel side of the engine is a long main bearing which is supported in a circular disc, the removal of which gives access to the crank chamber and enables the crankshaft to be inserted...The cylinder head is detachable, and, when removed, it can -be easily freed of carbon deposit, and sufficient of the piston is exposed to allow the top side of it to be cleaned without difficulty...The ignition is by flywheel magneto, which is the subject of a patent."



"Produced under one roof, the new Hawker lightweight has more than the usual number of interesting points."

Junior T.T.

A·J·S



As in 1914 - so in 1920.

...and to complete the year, here's a selection of the ads our predecessors were reading a hundred years ago...

TRADE **AUTOGLIDER** MARK

AT LAST DELIVERY FROM STOCK OF THE WORLD'S
MOST COMFORTABLE AND RELIABLE LIGHTWEIGHT
PRICE 55 GUINEAS.

THE MACHINE
THAT HAS PROVED
THE BEST
SUITABLE FOR
RIDERS OF BOTH
SEXES.



RELIABILITY
EXETER M.C.C.
362 MILES IN
19½ HOURS. IN-
CLUDING POR-
LOCK AND
LYNMOUTH HILLS

A PERFECT PICTURE, GIVING THE POETRY OF MOTION.

AUTOGLIDER LTD., Gt. Charles Street, BIRMINGHAM.

"Ixion" knows how to keep dry!

"Finally I bought a first-grade suit of grey oilskins made by Barbour, "of South Shields, and found I could ride my 200 miles of a trial, "stand in a steady downpour through two hill-climbs per diem, sit on wet "grass banks when my legs wearied, and get into the hotel at night bone- "dry; moreover, if the oilies were hung up overnight in a wall-less "stable for the draughts to play around them, they were invariably bone- "dry long before the first competitor got away next morning."

"Ixion," in his Occasional Comments—*"The Motor Cycle."*

Money back in full if they fail on any point.



Beacon Oilskins

NEVER GO STICKY OR LEAK.

The Beacon Motor Cycling Suit will keep you as dry as it does "Ixion," and will enable you to drive all day against wind-driven Rain and Sleet without letting you get wet or chilled.

Black double lightweight Jackets with windproofs, double fronts, and two roomy pockets, **30/-**
Semi-buttoned Legging Overalls, **17/6**

SUIT COMPLETE (post free) 47/6

In Bronze Grey—Jackets, **35/-**. Semi- buttoned Legging Overalls, **20/-**. Suit complete post free, **55/-**; with Seated Trouser Overalls in place of leggings, **60/-** and **68/6** the suit respectively.

Prices given are for Jacket length 33". For 36" and 39" length please add 2/6 and 5/- per suit respectively.

Overalls: prices are for 28" to 33" inside leg, and for Seated Overalls up to 40" waist.

Postage Free U.K.; extra abroad (allow also extra time for special Seasoning of Overseas Orders).

To order, kindly state colour needed, give jacket length, chest and inside leg measures, and enclose remittance.

ILLUSTRATED LIST POST FREE

Send a postcard to-day for this Booklet of "Weather Comfort."

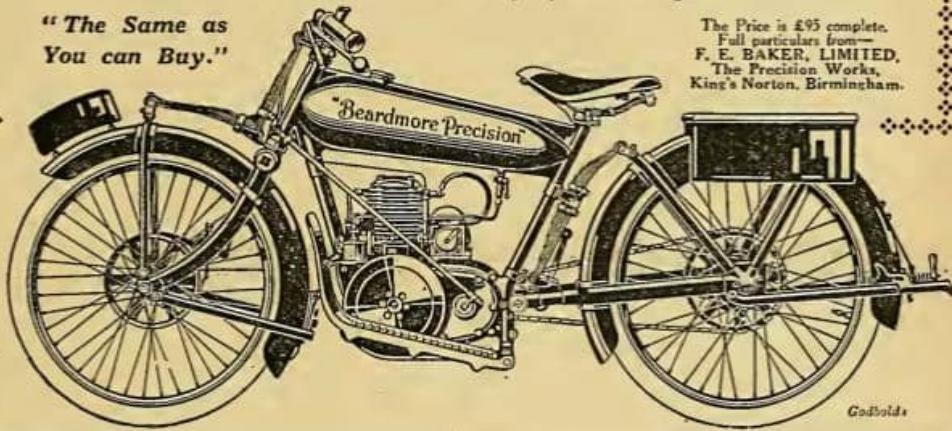
J. BARBOUR & SONS, Ltd.,
28, Beacon Buildings,
South Shields, England. (1) 

BEARDMORE Precision

MOTOR BICYCLE
"A Motor cycle de Luxe."

Daily Graphic.

*"The Same as
You can Buy."*



Godbolds

Easy Riding.

THE Beardmore "Precision" Motor Bicycle is intended for the rider who looks for the fullest possible enjoyment and the least personal discomfort; who wants to use his machine every day and regards motor cycling as a pastime rather than as a feat of physical endurance; who prefers comfort and cleanliness to mere pace: who wants to feel that he has the best. It has a highly effective spring frame, and ample protection against mud and dirt.

The Price is £95 complete.
Full particulars from—
F. E. BAKER, LIMITED,
The Precision Works,
King's Norton, Birmingham.

BENETFINKS

"The City's Own Store."

THE ENORMOUS POPULARITY OF OUR
ACCESSORIES FOR MOTOR CYCLISTS
TESTIFY TO THE VALUE CONSISTENTLY
OFFERED.

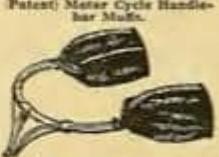
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The
Red
Devil

Mascot, complete with
two screw clips.
Price 16/-, post free.

The "ROBI"
Patent Motor Cycle Handle-
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Complete protection against cold
and rain. Absolute freedom of
movement for the fingers.

Model	Price
Mr Tan leather, hand fury dress	20/-
Mr Fox black msc., hand cloth	20/-
Mr " " - hand woollyfwool	15/-
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DUNLOP "W.D."
HEAVY R.S.
COVERS

26 x 2½ or
26 x 2½
37/9

Post Free.

Limited number only
at this price.



The
Swift
Mascot

Nickel plated,
finely chased
and finished.

A WONDERFUL SUCCESS!
U-NEAD-IT!

A Real Econo-
miser. Have
you tried it?
The Tyre Stop-
ping that will
not come out.

REPAIRS
Punctures in
Tubes and Cuts
in Covers.

No Motor Cyclist should be without it.



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MOTOR CYCLE
OUTFIT consists of
preparatory solu-
tion and cement
in patent combina-
tion tins.

Price, post free

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N.B.—Free demon-
stration at our Store.

A New Line! "ALL SORTS."

An Emergency Kit that every Motor Cyclist should carry, comprising a good selection of the following—
NUTS AND BOLTS, SPRING WASHERS, SPLIT PINS,
INSULATING TAPE, COPPER WIRE, ASBESTOS STRING
complete in stout bitch bag. Price 5/-, post free.

BENETFINKS, 107, CHEAPSIDE,
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At Our Expense.

Fit your lightweight mount with a 2-speed gear box.

We will supply you with a mechanically perfect countershaft 2-speed gear box, complete with controls and plate for bolting on. Finest workmanship, latest design, adopted by leading manufacturers.

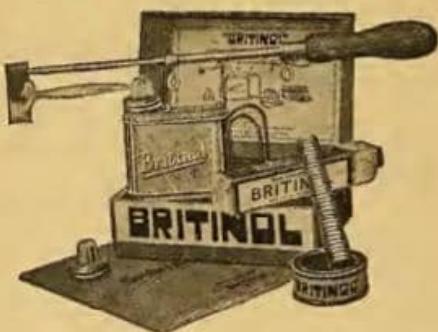
We guarantee that it can be fitted to a LEVIS, or other Lightweight Motor Cycle, in ten minutes without outside help.

We allow you to have one of these Gears and test it: if you find that it does not give you the utmost satisfaction, you may return it within 28 days, and we will immediately return you cash.

Do not worry any more about labouring up hills and eventually conking out; you do your engine much more harm than the Gear will cost you, and you will get a pleasant, sweet drive all the way, which, in itself, will easily compensate you for your outlay.

Remember, we will send you your money back. We take all risk. Price complete, £7 10 0, plus 2/6 carr. and packing, complete with change speed mechanism and engine sprocket, the whole machined interchangeably, ready to drop on and ride away.

BOOTH BROS., Bishop St., COVENTRY.



The SOLDERING OUTFIT illustrated above contains a specially designed TELESCOPE, SOLDERING IRON, a pocket BLOW-LAMP having supports on which to rest the iron while heating and giving a clear flame 3*1*/₂ to 4*1*/₂ inches in length, a large coil of BRITINOL SELF-FLUXING BLOWPIPE WIRE, and a supply of

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—the paste solder with flux combined. 9/6 from all tool dealers, etc., or sample set 10/- Post paid United Kingdom.

BRITINOL is solder in paste form. The most difficult work is made easy by its labour saving quality, and a clean job, with no uneven lumps of solder, and without waste and dripping, can be made with the minimum of skill. Our interesting booklet "SOLDERS", with price list of blow lamps, soldering irons, etc., will be sent on receipt of 3d. in stamps.

BI-METALS Ltd., 57, Lant Street, LONDON, S.E.1.

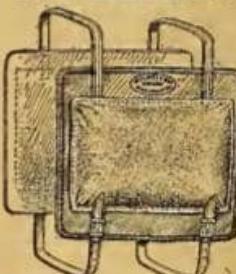
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HOLMES
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KNEE GRIPS.

All leather, strongly made, invaluable for winter riding. Suitable for tanks similar to Triumph, Norton.



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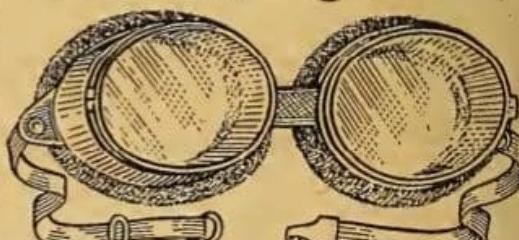
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Entirely our own manufacture and will be always used after the first trial. Neat in design and properly made

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Every motor cyclist requires goggles. Here is a splendid design, English manufacture, light and comfortable in use. Sent securely packed in cardboard box, post free for 3/6. Please ask for Number M.C. 390

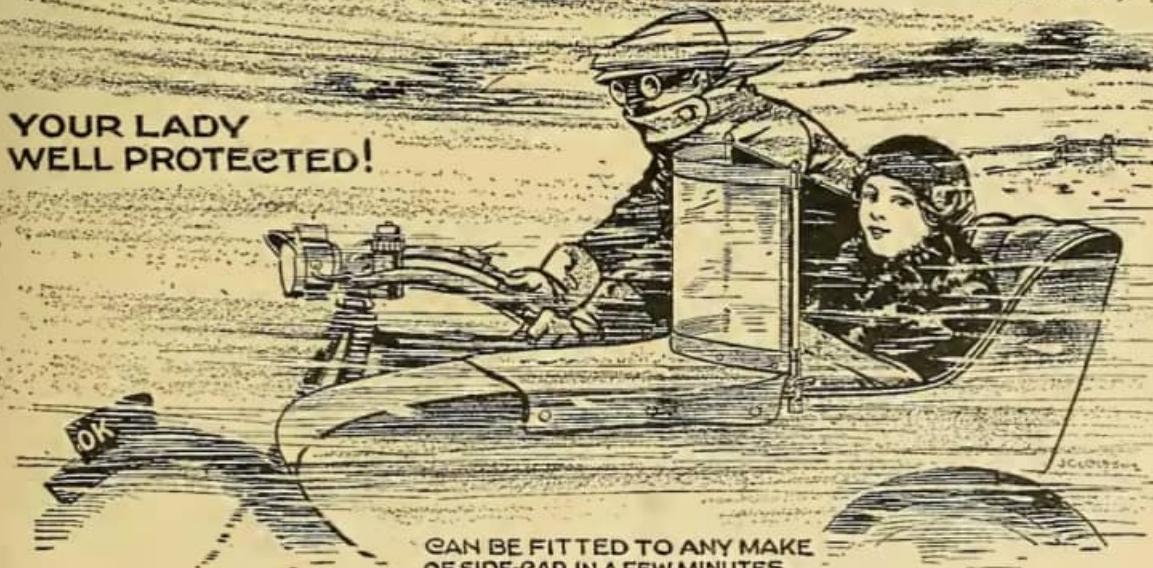
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HOLMES & SON, 38, Albert St., MANCHESTER.

The CAMEO WINDSCREEN



YOUR LADY
WELL PROTECTED!



CAN BE FITTED TO ANY MAKE
OF SIDE-CAR IN A FEW MINUTES.

SOLE MANUFACTURERS: OLLARD WESTCOMBE & CO LTD 46/47 GREAT CHARLES ST. BIRMINGHAM.

"Now, I ask you—

would the Leading Motor
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C.A.V. Magneto^s

BRITISH THROUGHOUT



unless they were satisfied
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all-round reliability?"

C. A. VANDERVELL & Co., Ltd.,
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Not a single rider

can feel safe on any motor cycle if he has to keep turning to look back. If only nature had endowed us with two sets of eyes all would be well, as it is—mechanical aids must be used.

The "Clayrite" No. 10 mirror, a really high-class article, provides an eye for the rider's blind side, allowing him to keep his eyes on the road ahead, yet at the same time being able to discern all movement to the rear. In traffic, "Clayrite" mirror prevent many an accident. Ask your dealer about it, and if he cannot supply send us his name. We will do the rest.



PRICE - 13/-

CLAYTON-WRIGHT,Ltd.
Great Hampton Street,
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Show this to your lady enthusiast.

This Beautiful Model direct from Ramont Fashion Rooms

MADE TO MEASURE

In Two Styles far below prices of ready-mades.

The Stylish Ramont Raglan

WARM WINTER COAT

(Made by the popular Ramont Sports Coat people)

Tweeds, Striped and Over-check Fleecy Blanket Cloths

SAVE MONEY! Don't buy ready-mades at ridiculous prices, but order to your measurements and your own choice of material the stylish tailor-made RAMONT COAT. All garments are guaranteed cut and finished to each customer's requirements on generous lines by men tailors. No stocks held. Goods delivered within 7 days of receipt of order. Do not delay—send for patterns now.

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Model 101 (as illustrated)
Double-breasted Raglan Coat, Deep collar and sleeves to button up. Deep, gauntlet cuffs and Raglan side-pockets.

SEND NO MONEY—PATTERNS FREE.

Patterns, Styles, Booklet and Measurement Forms free from

Ramont, Ltd., (Dept. 14a)
Finsbury Pavement House, E.C.2.

EACH COAT
MADE TO
MEASURE
from
45/-

"Look for the Big 'H' always in the front."

The "no-trouble" Combination

THE owner of a Hazlewood Combination commences his tour with the confidence born of experience resulting from long and satisfying service.

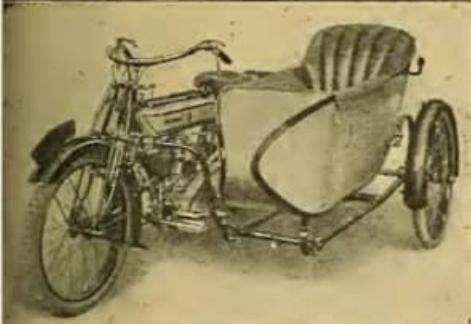
It will take you anywhere over the world roads to be found at home or abroad, and will bring you back. You can depend upon the "Big H" with its famous J.A.P. Engine to do more than is asked of it.

Remember its past record of remarkable success, and you understand why it is called the "no-trouble" combination.

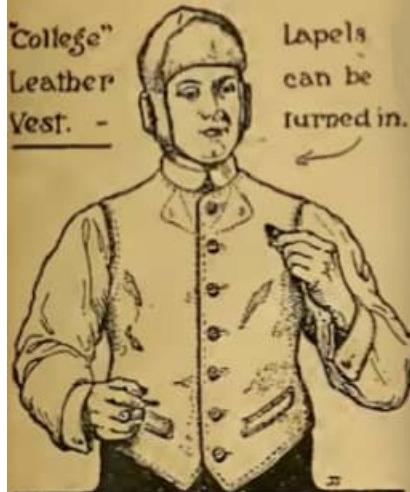
Let YOUR next combination be a

Hazlewood

Established 1876.



HAZLEWOODS LTD., COVENTRY.



IN SUEDE LEATHER.

Plum and Buff Colours.

Single Breast. No Sleeves

With leather back and front.

Fleece lined 35/-

Ditto but with fleece back and lining 30/-

Cheaper than many cloth vests.



"COLLEGE" PATENT FOOT OVERALLS.

It is the ONLY overall which covers the foot and can be completely and instantly removed without pulling the foot through. Made from strong, serviceable material; cutting sent on request.



"COLLEGE" MUDSHIELDS.

In daily use by thousands of riders. We have numerous testimonials from satisfied users. You know you want such a thing, then send for list NOW.



POCKET SLIPPERS.

In grey or brown suede leather, fleece lined and with bag as illustrated. Each pair neatly packed in cardboard box and sent post paid for 8/-.

Mention whether ladies or gents, and size of boot.

Write for List to Sole Manufacturers:

COLLEGE LEATHER Co.
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WAUCHOPE'S

WE have the largest variety of new up-to-date Motor Cycles and Sidecar Combinations, difficult to surpass elsewhere. Call and see our interesting selection of the best makes, as Douglas, etc., and we will be pleased to supply details of all the latest models. We have also a wide variety of second-hand machines fully repaired and ready for the road, ready to run, bearing our full guarantee of mechanical fitness.

Phone: Holborn 377. General: "Opheus, Fleet, London."

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As good as any
and better than
many—at their price.

MOTOR CYCLES

THE COVENTRY EAGLE CYCLE AND
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AVON
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Made at Melksham
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Millford SideCars

Quality & Comfort
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POST FREE, 6/- WORKS: HALL GREEN,
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MAY your wanderings be brimful of
brightness, prosperity the com-
panions of your pastime, and good fortune
guide you over Merrie ENGLAND'S
highways, is the sincere
wish of

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Do not
affect the
Sense
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Prevents
Injury to
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INVISIBLE EAR PROTECTORS.

Weekly Sales are still on the Increase,

Price **1/6 & 2/6** per pair, of all dealers.

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F. HILL BAILEY,
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*She needn't
wear goggles now!*

The Easting Windscreen makes those disfiguring goggles absolutely unnecessary.

It substitutes a neat and attractive celluloid screen than can be bought in any colour to match your combination.

It can be adjusted in nine different positions to ensure her comfort under any circumstances.

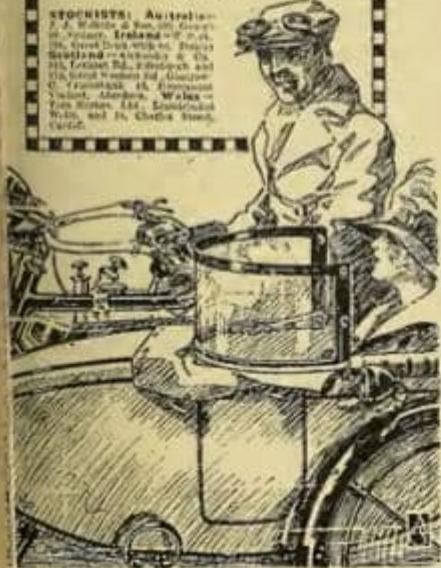
Let your passenger be really happy.
GET ONE NOW for *HER* comfort.

Write us for all particulars.

Easting Windscreens, Ltd.,
132, Steelhouse Lane, Birmingham
and all the leading Factors in the country.

FASHION

STOCKISTS: Australia—F. J. Malins & Son, 200, Pitt St., Sydney; Ireland—W. P. O'Brien, Dublin; Germany—Daimler-Benz AG, Berlin; France—M. Léonard, Paris; Belgium—M. Léonard, Brussels; and D. A. Scott-Wade, Ltd., Glasgow; Scotland—A. G. Thompson, Edinburgh; Northern Ireland—J. C. Young, Belfast; America—Walker Tires Motors, Ltd., Los Angeles, Calif.; and St. Charles, Illinois.



Sphinx
MADE IN ENGLAND

ENSURE These Healthy Vigorous Sparks

They mean "life"—that indefinable something which is a combination of all the virtues—durability, speed, responsiveness, flexibility, power.

BY ALWAYS USING
'SPHINX'

—ENGLAND'S MOST DURABLE PLUGS

There is a type suitable for every engine. Catalogue free upon request.

THE SPHINX MANUFACTURING CO., LTD., BIRMINGHAM

HERE IS
THE FAMOUS
KICK-STARTER MODEL
GRADO Multi-Gear

WITH FREE ENGINE.

JUST THE THING
for motor cyclists with single
gear machines.

Gives gear ratios from 4 to 1 to
1 to 1 free engine, and kick-
starter.

Think what it means to be able
to start your engine from the
taddle.

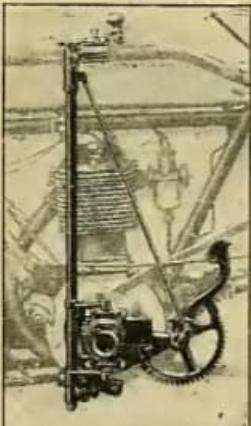
IN TWO HOURS
the pulley can be fitted by any-
one to Triumphs, Bradburys,
Precisions, Nortons, U.S.A.,
L.D.C., etc.

PRICES for 1920 Kick
Starter Models.

We can now supply for
J.A.P. and other engines
requiring a recessed
pulley.

For Machines up to 4 h.p., £12 0 0 Postage, 4/- extra.
For Machines up to 6 h.p., £12 10 0 Postage, 4/- extra.
Special Models for Jap Engines, 10/- extra.

Full instructions for fitting supplied with each pulley.
Delivery from Stock.

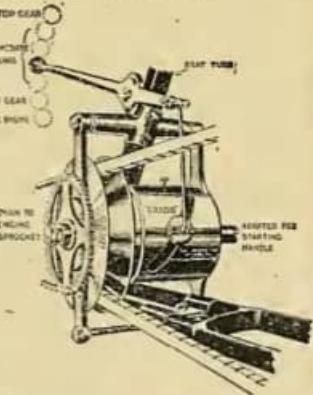


THIS MODEL IS FOR
TWO-STROKE
MACHINES
with Outside Flywheels.

THE
GRADO

Countershaft
Chain-cum-
Belt variable
Gear with
handle to start,
gives you a free
engine and any
gear. Can be
fitted in two
hours to any
machine.

It is the finest
Gear ever made.



Price, all complete with chain, sprocket,
adapter, etc., £12 0 0.

ORDER TO-DAY.

GRADO LTD., Pershore St.,
BIRMINGHAM.

"GRADO" GEARS

make your machine climb anything but a staircase. Fitted in two hours. No alteration to machine.

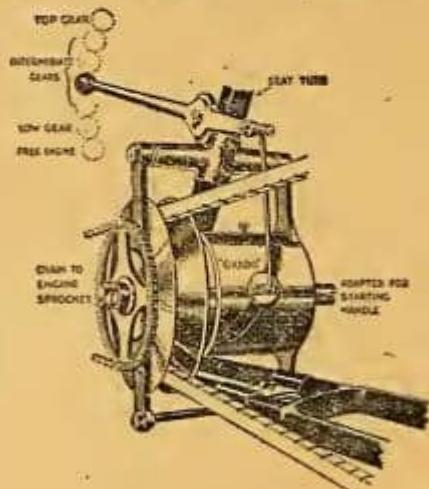
PRICE: £12-0-0.

For TRIUMPHS, BRADBURY'S,
PRECISIONS, etc.

Sit on your saddle and start engine.

Variable gear, free engine, kick-start. There is our world-famous kick-start model for all machines from 3 to 10 h.p.
DELIVERY FROM STOCK.

TWO-STROKE RIDERS — This gives you a gear for every gradient



THIS IS OUR NEW
COUNTERSHAFT MODEL
FOR TWO-STROKES.

Variable gear, free engine, and handle-start.

£12 complete with chain, two sprockets, and adapter. Post 4/-

DELIVERY THREE WEEKS.

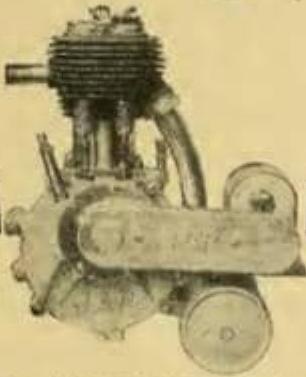
DECEMBER 9TH, 1920.

THE MOTOR CYCLE.

ADVERTISEMENT.

THE WONDERFUL LITTLE

J.A.P. $2\frac{3}{4}$ Engine



The newly-designed $\frac{11}{2}$ h.p. J.A.P. engine.

Captures all Lightweight RECORDS

AT BROOKLANDS IN CLASS A, A1.

BROOKLANDS.

100 miles, 1 hr. 50 min. 39 sec.=55-22 m.p.h.
Class A and A1.
150 miles, 3 hr. 0 min. 48 sec.=49-75 m.p.h.
Class A and A1.
200 miles, 4 hr. 18 min. 38 sec.=46-46 m.p.h.
250 miles, 5 hr. 18 min. 58 sec.=47-02 m.p.h.
2 hours, 107 miles 144-2 yards=53-91 m.p.h.
3 hours, 149 miles 474 yards=47-75 m.p.h.
4 hours, 188 miles 263 yards=47-03 m.p.h.

5 hours, 234 miles 617 yards=46-87 m.p.h.
6 hours, 283 miles 782 yards=47-24 m.p.h.
Flying Kilo., Class A, 63-91 m.p.h.
• Flying Mile, Class A, 63-60 m.p.h.
International Mean Speed Record, Nov. 25th.
5 miles, Class A, 59-4 m.p.h.
10 miles, Class A and A1, 58-3 m.p.h.
50 miles, Class A and A1, 55-81 m.p.h.
1 hour, Class A and A1, 55-55 m.p.h.

55.55 MILES IN THE HOUR!

Choose therefore a J.A.P. Engine
for your next machine.

J. A. PRESTWICH & Co., Ltd., Northumberland Park, Tottenham, London, N.17, Eng.

Telegrams: "Prestwich, Tottlane, London."

Telephone: 1613, Tottenham

In answering this advertisement it is desirable to mention "The Motor Cycle."

DE

"KING DICK" Spanners

*famous
for 35 years
guaranteed
for ever*

**WILL ADJUST A WATCH
OR A MOTORCAR**

Made in four sizes—3in., 4in., 6in. and 9in. Remember that every genuine "King Dick" Spanner bearing mark shown is guaranteed for ever
Obtainable at all good dealers.

Abingdon Works, Ltd., Tyseley, Birmingham.
LONDON:—G. H. SMITH, 12, Mortimer Street, W.r.
IRELAND:—F. N. DRAPER, 68, Middle Abbey St., Dublin

Proof!

The following letter bears out our statement that the "King Dick" Spanner will adjust a watch or a motor car.

India August 14th, 1920
Having occasion to use a very ancient watch which had not been wound for six or seven years, I was balked by having no watch key. However, recalling your advertisement, I tried winding and setting the watch with my Baby King Dick. I was not only completely successful, but have not bothered to buy a watch key, and now use the spanner to wind my watch every day, and this in spite of the fact that I have frequently grossly maltreated this excellent little spanner by using it on quite large nuts on my motor cycle.

(Signed) J.C., Captain I.A.

MAGNETO REPAIRS
by Experts.

Excellent Workmanship.
Utmost Satisfaction.

Also SPARE PARTS for ALL TYPES.
All work executed by highly-skilled Craftsmen, and absolutely guaranteed.

**24-HOUR SERVICE
LOW CHARGES.**

LARGE STOCK OF NEW AND SECOND-HAND MAGNETOS.
Manufacturers of "The Merlin" Accumulator.

PLATINUM SCREWS
A SPECIALITY.

MEAGHER & RATCLIFFE.
221 DEANSGATE, MANCHESTER.

RENNOC SIDECARES Bodies and Hoods

ORDER NOW FOR IMMEDIATE DELIVERY.
Largest Stock in London of complete Sidecars and Bodies.

ACTUAL MANUFACTURERS THROUGHOUT.
Wholesale, Retail, and Export. Send for List.

20 various model bodies, single and tandems, from £4 10s.
300 complete Sidecars and Bodies in stock.

CHASSIS A SPECIALITY.

LIGHTWEIGHT MODEL.
Model 445. 18 Gns., plus 5%
In Stock.

**Rennoc Motors, Ltd., 86, Victoria Rd.,
STROUD GREEN, N.** ————— Phone: Hornsey 850.

UPKEEP 4/- PER ANNUM

"The Meteor"
ELECTRIC LIGHTING SET

Solo Set, as illustrated £6 6s.
Combination Set 3 lamps 4 vlt 60Am. £9 9s.

Who Fears the Night with such a Light.
There is no cause for fear, even on the darkest night, rely on "THE METEOR" as your super guide, it will carry you through. Bad roads, pot holes and dangerous bends are fully exposed by the Safety Beam of "THE METEOR" and negotiated as easily by night as by day.

By fitting "THE METEOR" you can rest assured that you are getting the most reliable, economical, and cheapest set on the market. Our patent filament lamp ensures the whole of filament being in focus. Result : a powerful driving light at a minimum of consumption.

ORDER TO-DAY AND AVOID DISAPPOINTMENT. TRADE ENQUIRIES SOLICITED.

From Agents everywhere or direct from :—
THE MOTOR TRADING & GARAGE CO., METEOR HOUSE, SUMMER ROW, BIRMINGHAM.

Montgomery
THE PIONEER FIRM

Economy is the order of the day, and quite rightly so ; but highest efficiency is the truest economy.

Montgomery Sidecars are made in the largest and best equipped sidecar works in England. Add to this the experience which time alone can give. Multiply this by high production and you get EFFICIENCY with ECONOMY, viz. :

Sidecar Model No. 1	£30 10
" " No. 2	£27 0
" " No. 3	£21 0

You can buy much heavier sidecars, but you cannot buy one which will give you better service

W. MONTGOMERY & CO., COVENTRY :: ENGLAND.

1902

Father of the Sidecars.

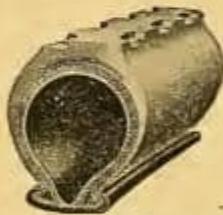
MONTGOMERY SIDECAR COVENTRY

BRITAIN'S REPLY to American Tyre Invasion

As a proof of our confidence in the quality of our new 1920 type Skew Motor Cycle and Light Car Tyres, we make the following offer (open for a few weeks only):

TWO-THIRDS

of price to be paid with order, balance on completion of
4,000 MILES.



Skew Heavy Square.



Skew Round.

SIZE.	SKEW ALL-RUBBER RUN FLIDS.					
	Heavy Square.		Heavy Round.		Inner Tube.	
	Cords with order.	Balance due on 4,000 miles.	Cords with order.	Balance due on 4,000 miles.	Cords with order.	Balance due on 4,000 miles.
26 x 2½	40 ft	£ 1. 8. 0	£ 1. 8. 0	£ 1. 8. 0	£ 1. 8. 0	£ 1. 8. 0
26 x 2½	22 rims.	1 19. 0	1 19. 0	1 18. 0	1 16. 0	1 13. 0
		2 4. 0	1 2. 0	—	—	0. 9. 0
26 x 2½	50 ft	2 8. 0	1 2. 0	2 2. 0	1 1. 0. 0	0. 9. 0
26 x 2½	22 rims.	2 12. 0	1 8. 0	—	0. 17. 0	0. 6. 0
650 x 65	30 ft	2 12. 0	1 8. 0	2 2. 0	1 3. 0	0. 10. 0
700 x 60	450 MILES, 40 ft	3 2. 0	1 19. 0	—	—	0. 18. 0
700 x 60	450 MILES, 40 ft	4 12. 0	2 1. 0	—	—	0. 18. 0
700 x 60	450 MILES, 40 ft	4 12. 0	2 1. 0	—	—	0. 16. 0

FIRST PASSENGER TRAIN. CARRIAGE PAID.

Buy British Tyres and keep Ex-Soldiers at Work.

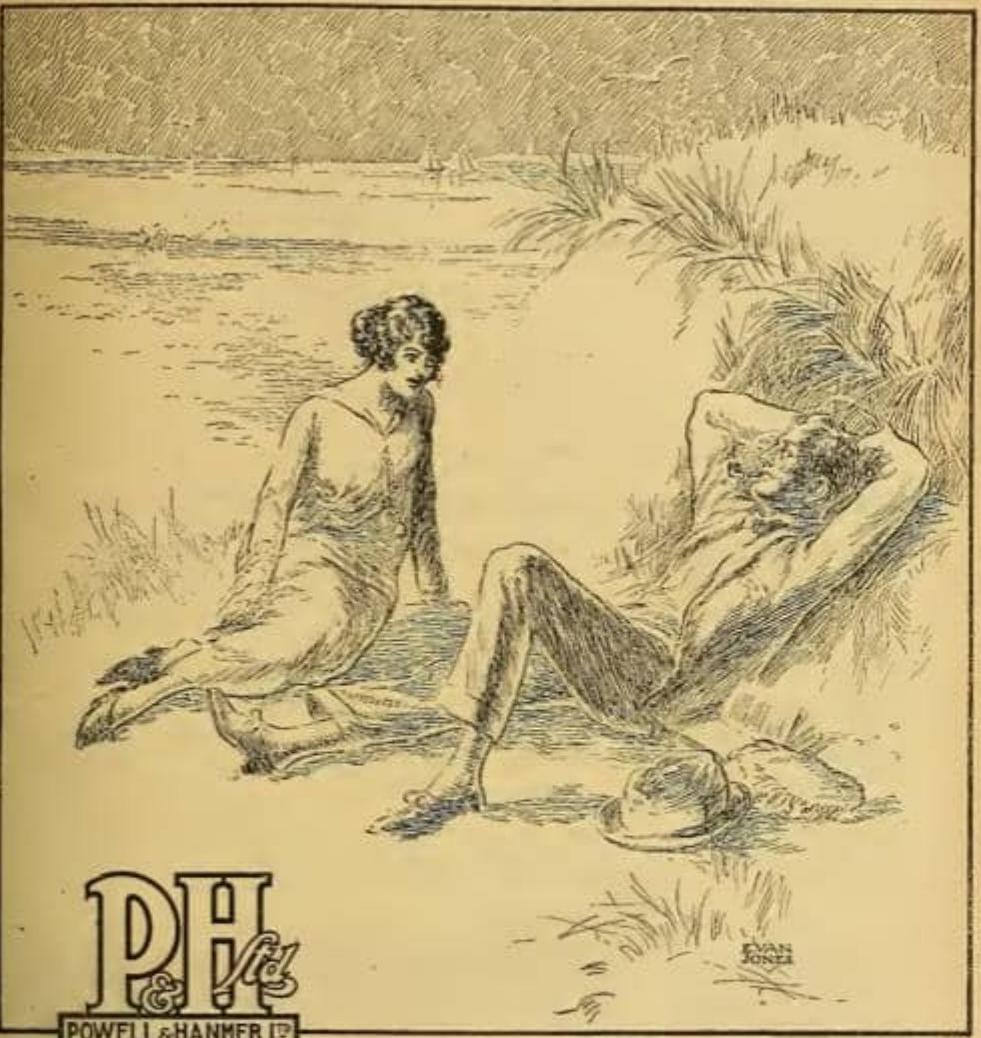
Order through our Local Agent, or from

OYLER'S

TYRE MANUFACTURERS,

35, New Cavendish Street, Great Portland Street, W.1.

Telephone—Mayfair 36 & 37



PH
&
POWELL & HAMMER LTD.

BIRMINGHAM



"But we can't go all that way back in the dark"—Why not?

There's no need to worry at all with those "P. & H." LAMPS, you can ride as SAFELY by NIGHT as by DAY. They are absolutely *the thing* in Lighting Sets, giving a steady beam of clear white light for some distance ahead, and you spin along in comfort and safety.

Enjoy all your happy summer days to the full with an easy mind about the night ride home by using

"P. & H." LAMPS



No. 127 H.B.
PRICE - 80/-

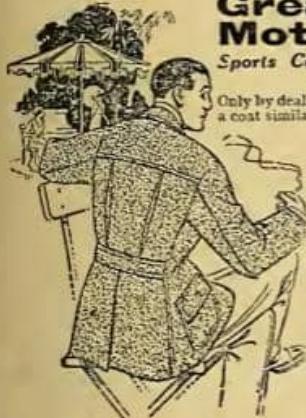
Ramont SPORTS COAT

MADE TO
MEASURE.

30/-

Great Offer to Motor Cyclists

Sports Coats direct from makers at
half shop price.



30/- NOT £3.

quired, making the "RAMONT" SPORTS COAT into a cheap Summer suit.

SOLD WITH "MONEY-BACK" GUARANTEE.

Every Coat is sold on the understanding that if you are not satisfied with it we refund your money in full.

RAMONT Ltd. (Dept. 14), FINSBURY PAVEMENT, HOUSE, LONDON, E.C.2.

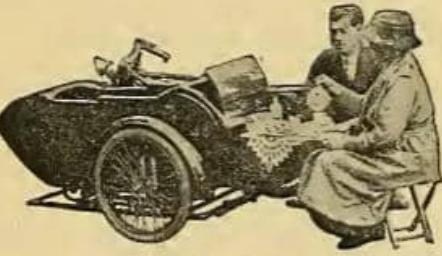
SEND NO MONEY—SEND FOR PATTERNS.



Placket back,
with 3 pockets.

Langford Model Supreme "The Picnic Sidecar"

THE LAST WORD IN LUXURY



SPECIFICATION.

Solid welded Frame, Spring Shock Absorbers to Sidecar Wheel, Transfer Spring. With New Design four-pilot Easy Attachments. Beautifully finished Coach Built Spacious Body, with Bulbous Back and Rounded Pillows, and fitted with Luncheon and Tea Cabinet for two, Camp Stools, Locker for Petrol and Oil. Patented Design, finished any Colour. Delivery within 14 days. Write or Call for Catalogue. Agents, Foreign and Colonial Shippers invited.

THE LANGFORD SIDE-CAR BODY AND CHASSIS COMPANY, LIMITED,
NORBURY WORKS, LONDON ROAD, NORBURY, S.W.16

NOW READY

A book that will interest the old-timer, the designer, and all motor cyclists.

MOTOR CYCLE REMINISCENCES

By
"IXION"
of
"The Motor Cycle"

This new book will rank as one of the best things "IXION" has ever done. It not only gives an amusing record of the author's own motor cycling experiences and misadventures, which began nearly twenty years ago, but it contains also a great deal of very interesting motor cycle history, covering, as it does, all the great rides of the early days, from the first End-to-End ride in 1902, and all the important French races.

The writer has drawn upon a well-stocked memory to good purpose, and produced a work which will appeal

strongly to all motor cycle enthusiasts. None can read it without laughter, yet under the author's whimsical style there will be found a mass of instructive facts, bringing into sharp relief the wonderful progress that has taken place in motor cycle design.

The book is appropriately illustrated, and in addition to a unique collection of photographic reproductions of early machines, events and rides, it also contains 14 specially prepared drawings of a humorous character.

Price 5/- Net. - By Post, 5/3.

From the Publishers: ILIFFE & SONS Ltd., 20, Tudor St., London, E.C.4.

And leading booksellers.

THE NEW Scale

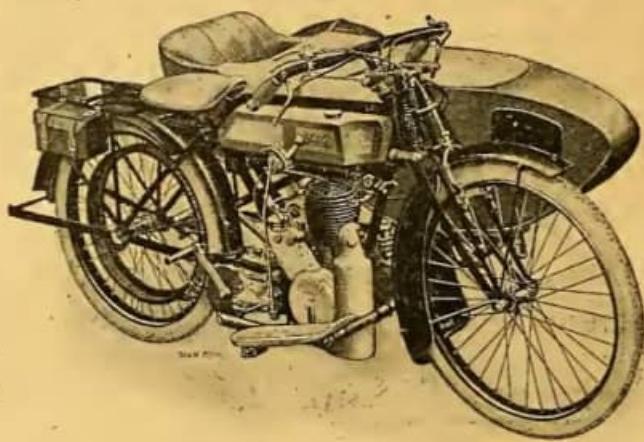
TRADE



MARK

3½ h.p.
Two - stroke
Two - speed
Clutch
and
Kick start.

The above is an
illustration of our
MODEL "B"
—the ideal
COMBINATION
for all purposes.



The ideal
machine
for
Solo
or
Light.
Sidecar.

Write for illustrated
booklet and name of
nearest agent, who can
quote absolute
**DEFINITE
DELIVERY
DATE.**

ROBERTS & HIBBS.

Telephone: 623 Openshaw.

BANK STREET WORKS,
DROYLSDEN, MANCHESTER.

Telegrams: "Robertshibbs, Droylsden, Manchester."

LYTINS' PATENT
MOTOR CYCLE



REPAIR BENCH

Save Time and Money by
doing your own Repairs.
Price 87/6 delivered.

A. E. W. GWYN, Ltd.,
5, BUDGE ROW,
LONDON, E.C.4

WIRE WHEELS.

Built to order. Customers or own material.
Trade supplied. Immediate delivery. Lowest
terms in London.

L.R.C.S., LTD.,
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'Phone: Willesden 3250.

MAKE YOUR 'BUS LIKE NEW

Enamelling and Plating makes a wonderful
difference in appearance and value.
WE CAN PLATE AND ENAMEL
IN ALL MAKERS' COLOURS.

Specialists on Tanks and Sidecar Bodies.
Prompt Deliveries.

COUNTY ELECTRO PLATING CO.
99, Manchester Road, BRADFORD.

ORTO WINDSCREENS! HOODS & APRONS



have no equal in
price, design, quality,
workmanship,
and efficiency.

ATKINSONS,

306, Uxbridge Road, Shepherd's Bush, W.12.
'Phone: Hammersmith 240.

MEMO

To ensure insertion
letters containing
advertisements intended
for these columns should be
posted in time to reach the offices of "The
Motor Cycle," Coventry, or London 20,
Tudor St., E.C.4, by the first post on Friday
morning previous to the day of issue.

SPARE PARTS

supplied from stock or immediately made to pattern
any machine. Rudge Spares in stock. Rudge Repair
kit available. N.S.U. Gears, British made, supplied to
fit any machine. N.S.U. Spares and Repair. ROC
2 speed Counterhaft Gears, to fit any make Light
weight, 17-19-0 complete.

Call, write, or phone—Kingsbury 161
THE C.W. MOTOR CO.,
Motor Cycle Specialists
209, Broadway (Edgware Road), West Hendon, N.W.

PATLAND MIXTURE

W & H. TAYLOR, Mfrs. DUBLIN.

TRIUMPH PARTS

We are the promptest firm for these. Practically every part for every model actually in stock. Enclose stamped envelope, please.

FORFIELD MOTORS,
11-12, FORFIELD PLACE,
LEAMINGTON SPA.

TRIUMPH PARTS

HINTS AND TIPS for MOTOR CYCLISTS.

A little book with a lot
of useful information in
it for every motor cyclist

Price
2/-
net.

From ILIFFE & SONS Ltd., 21,
Tudor Street, London, E.C.4.
and all leading booksellers.

By
Post
2/3

INSEPARABLE!

TAN-SAD

TANDEM-SADDLE
PILLION SEAT &
SAFETY

TAN-SAD WORKS (No. 2),
9, Freeman Street, Birmingham.

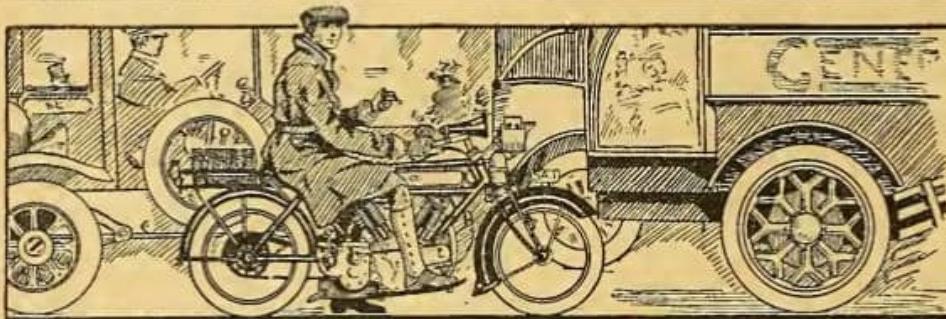


"SOPWITH PUP" SCALE MODEL MASCOT.

With genuine current Centrale
Propeller, an Illustrated with
Clip for Front Number Plate.
7.0. post free. Size 3½in. x 6in.

✓ Twin Screw Monoplane,
height 1ft., spanwise 1ft. 6in.
width 8in. Total weight
10lb. Made of metal panel
for collector or pilot. Postage £1.

M.-S. AVIATION CO., 21, Morley Rd., Tooting, S.W.1

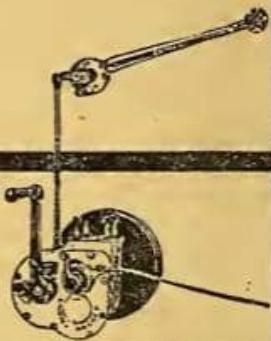


For the
Traffic
"crawl"

You know that crawl—when you've got to get down to a slow walk and then suddenly sprint at record speed. There's only one way of doing it—to have a Sturmey-Archer on your machine. Slip in the gear occasion warrants, and you have 2 or 50 miles an hour at your will.

Sturmey-Archer Gears, Ltd., Nottingham.

STURMEY - ARCHE **R**
COUNTERSHAFT GEAR



To Motor Cycle Dealers

THE following firms have been appointed **Sole Selling Agents** for the disposal of the first batch of Surplus Government Motor Cycles, recently purchased by Sir Percival Perry (Slough Syndicate) consisting of approximately 3,000 machines :—

Messrs. Crabtree & Son, Ltd. . . Wisbech.

Telephone 140.

Allen-Bennett Motor Co. - - - Croydon.

Telephone 2450.

Burlington Motor Co., Ltd. - - - Clapham.

Brixton 2417.

Machines for disposal include :—

Douglas 2 $\frac{3}{4}$ h.p. Douglas 4h.p.

P. & M. Clyno.

Enfield. Royal Ruby.

Etc., Etc.

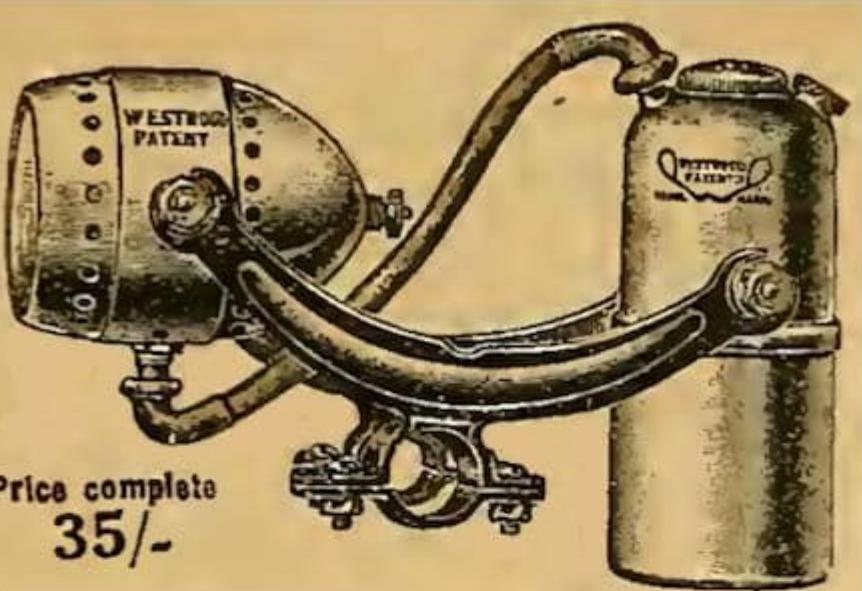
Some Reconstructed. Solos and Combinations.

TRADE ONLY SUPPLIED.

We will load free on rail all lots of one dozen and over.

FULL PARTICULARS ON APPLICATION TO

**“Motor Cycles,” Royal Hotel,
SLOUGH.**



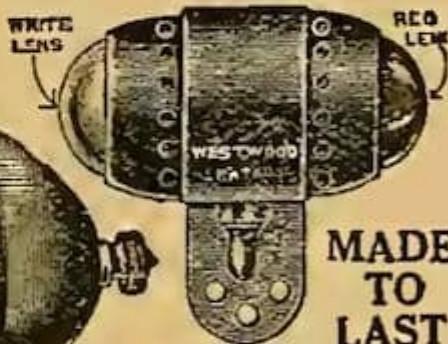
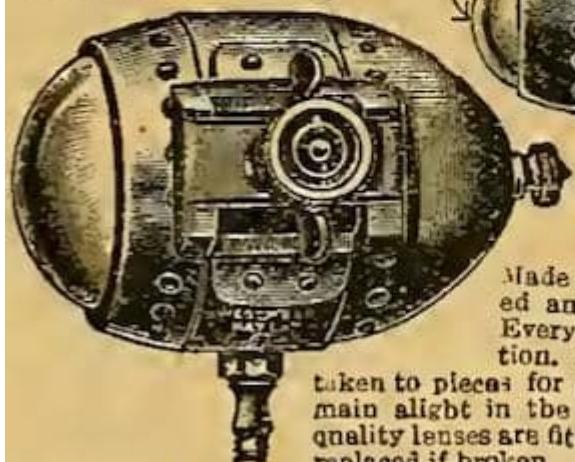
Price complete
35/-

SIDE CAR LAMP.

List No. 19/2.
Price, 7/6 each.

SIDE LAMP.

List No. 19/4.
Price, 18 6 each
Right or left fitting.



MADE
TO
LAST

Made from solid brass, turned and threaded at joints. Every part of solid construction. These lamps may be taken to pieces for cleaning, and will remain alight in the strongest gale. Best quality lenses are fitted, and can be easily replaced if broken. These lamps will last as long as the machines they are used on, & are absolutely rustless.

TRADE MARK
WESTWOOD
RIM & PATENTS LTD
LAWDEN RD BORDESLEY BIRMINGHAM.

O'Donovan Motors

76a, Gt. Portland Street, W.1.

**IMPORTANT
ANNOUNCEMENT**

D. R. O'Donovan

begs to inform his friends and the public that he has opened offices and showrooms for the sale of motor cycles and accessories at the above address, having secured amongst others the **Sole London and District agency** from this date for the world-famous

NORTON

For July and August deliveries of this make, wire, write, or call. Distance no object. Official repairers for London and District to Messrs. Norton Motors Ltd.

NOTE: We are open to tune up a limited number of second-hand Norton Motor Cycles. Results guaranteed. Early application essential. Large stocks of spare parts and accessories carried.

WOOLER

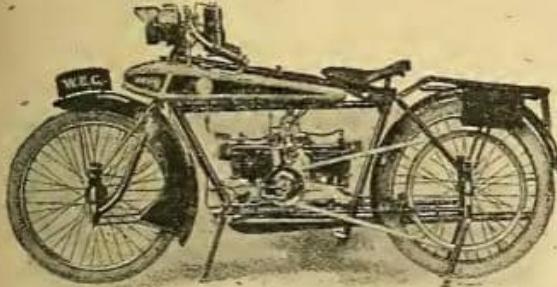
MOTOR CYCLE CO.

(1919) Ltd.

ALPERTON,
LONDON.

Telegrams : "ACCESSIBLE, LONDON."

Telephone : WEMBLEY 252.



WOOLER 2½ H.P. FLAT TWIN.
The Accessible Motor Cycle.

RIDE IN COMFORT. DON'T THREATEN

To give up motor cycling because the present condition of the roads is so awful.

RIDE A WOOLER DON'T WAIT

Until the roads have been put under proper repair; this will take quite a long time, as the working man is still undergoing his rest cure, which he considers his due, following the successful termination of hostilities. In the meantime you are getting older, and may fail to appreciate the joys of the finest sport given to man.

RIDE A WOOLER

which with its complete spring frame simply floats along the surface of the present roads.

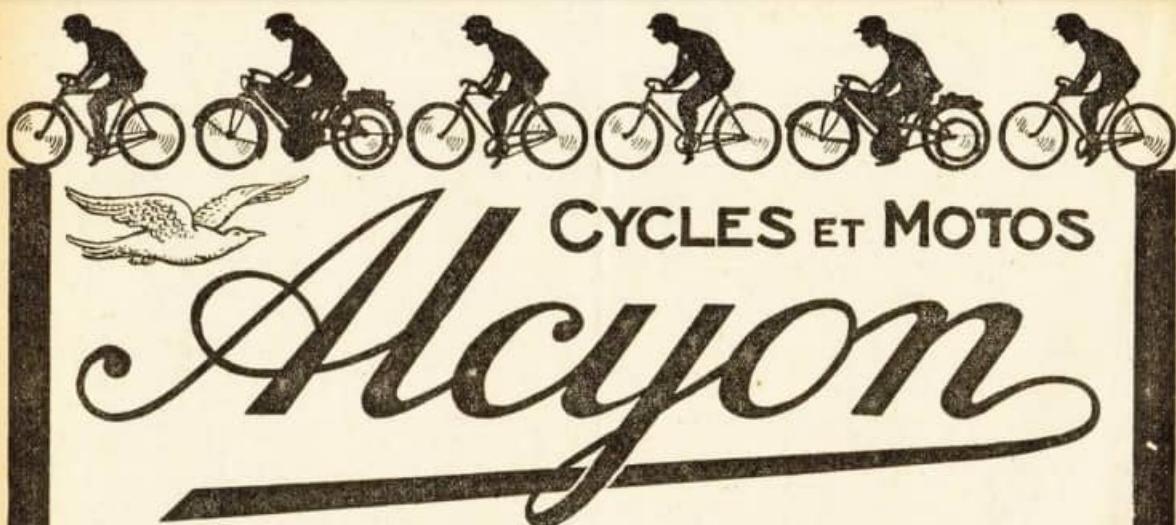
Testimonial. WOOLER SERVICE

Llaynugoril, Wales.

2/9/20.

"I must thank you for your prompt attention to me hitherto. It is a pleasure to deal with a firm that takes some interest in its customers after the machine has left the Works." —(Signed) E. E. MORGAN.

RIDE A WOOLER, the machine which gives
COMFORT with ECONOMY



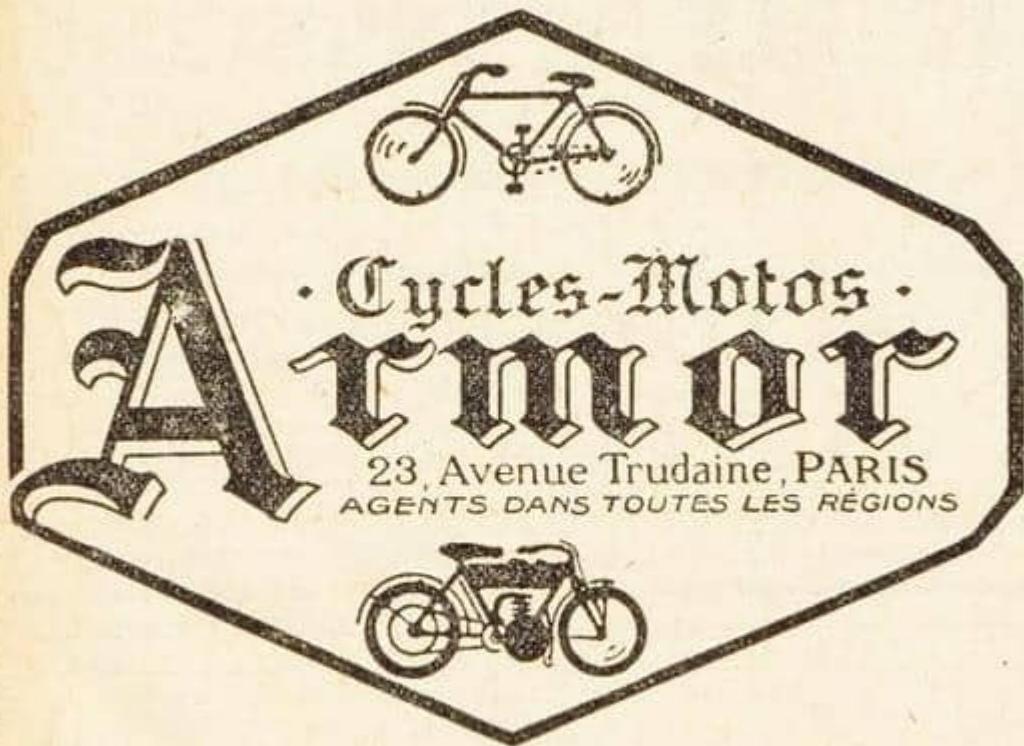
"Les Cycles et les Motos Alcyon sillonnent le monde"

USINES A COURBEVOIE — AGENTS PARTOUT.

"PUBLICITO"

A. PARENT.

LA MEILLEURE CONSTRUCTION FRANÇAISE



LA MEILLEURE CONSTRUCTION FRANÇAISE

Cicli-Moto G. BERTACCHINI

BUDRIO - Correggio - Emilia



FORGONCINI



Costruzioni, Forgoncini,
Side-car, Trasformazioni e
pezzi di ricambio, Attacchi
per tutti i modelli.



CHASSIS PER SIDE-CAR



SIDE-CAR COMPLETI



TROTINETTES



Saldatura autogena,
Impianti completi.

:: BICYCLES ::
MOTOCYCLES
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B. S. A.

La 1^{re} Marque anglaise

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:: FRANCO SUR DEMANDE A ::

L'AGENCE DIRECTE B. S. A.

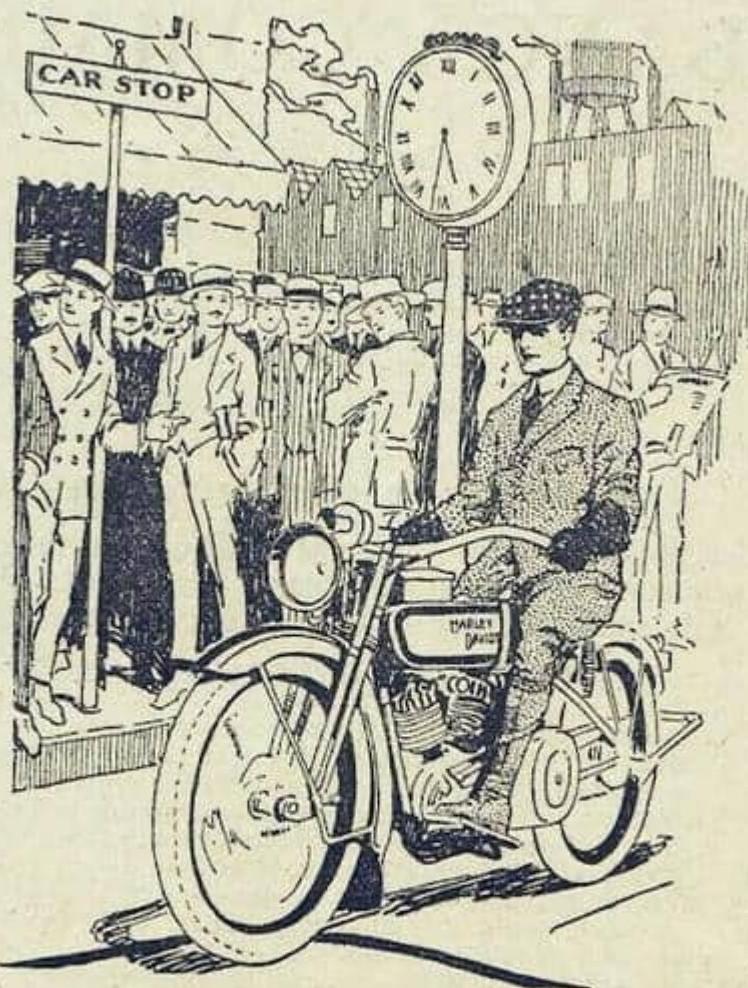


BROWN

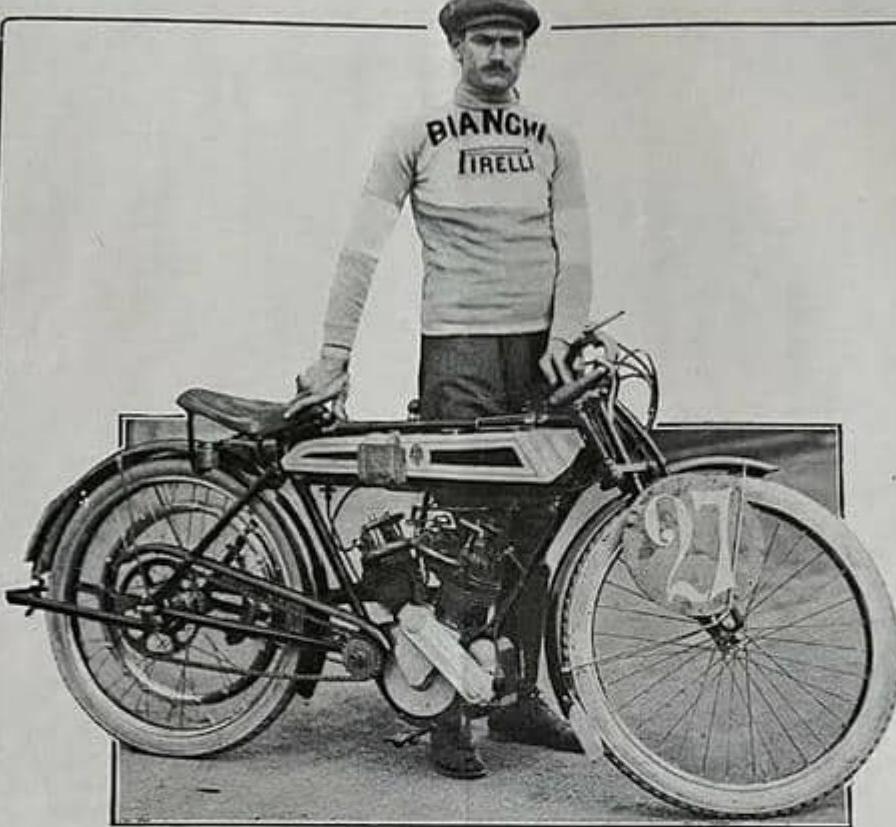
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Tél. Roq. : 39-75



MOTO DI GRAN LUSSO
HARLEY - DAVIDSON
AGENZIA GENERALE ITALIANA - LUCCA



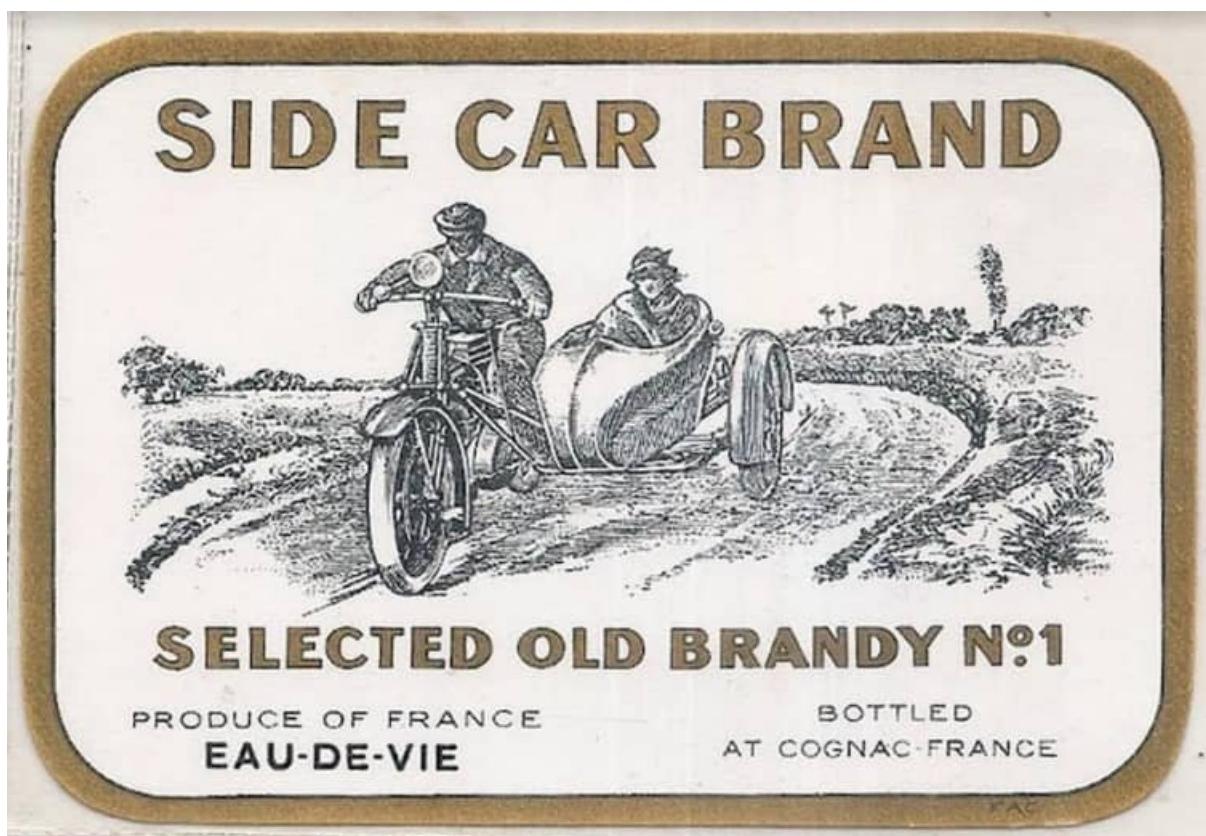
CARLO MAFFEI. L'INSUPERATO CAMPIONE E TECNICO DELLA MOTOCICLETTA,
PER RITORNARE ALLE CORSE E VINCERVI COM'ERA SUO COSTUME, HA SCELTO
LA PICCOLA

Motocicletta **BIANCHI**

(2 CILINDRI - 490 CMC. DI CILINDRATA)

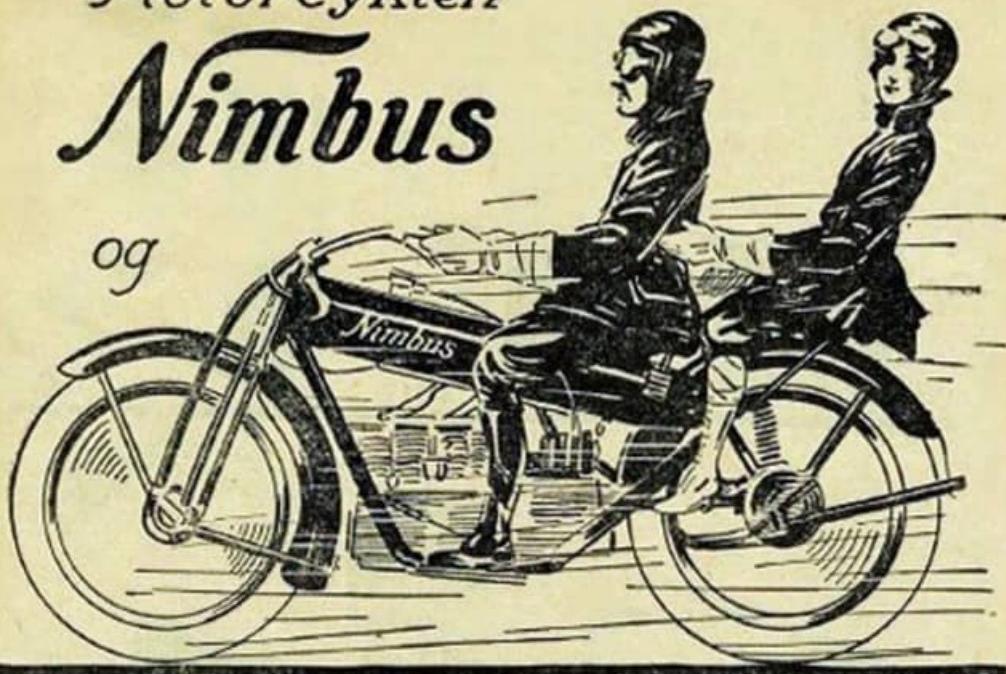
MUNITA DI GOMME

PIRELLI



Motorcyklen
Nimbus

og



This might be the first advert for the new Nimbus motor cycle. It tells us three things. 1. The Danish for 'and' is 'og'. 2. Danish motor cyclists sported dodgy moustaches. 3. Danish motor cyclists had cute pillion passengers.



A New Friend for every Lover of the Big Outdoors

A detachable Bicycle Motor—think what that means! A thoroughly practical, easily operated motor that you can attach to any bicycle in five minutes. It will take you anywhere you want to go at a speed of 4 to 20 miles an hour and will run 100 to 125 miles on a gallon of gasoline. The

Smith Motor Wheel

travels boulevards or rough roads and climbs hills with ease. Full control from one small thumb lever on handle bars of bicycle. Because the Smith Motor Wheel is so cleanly, simple and vibrationless and affords all the pleasures of bicycling with the work left out, "Motorwheeling" is fast becoming the most popular outdoor sport in America.

Write for "Motorwheeling," the big, free catalog and learn where you can see and ride a Smith Motor Wheel.

A. O. Smith Company, Motor Wheel Division 52 Milwaukee, Wisconsin
Largest Manufacturers of Automobile Parts in the World

THE WALL AUTO-WHEEL

*"Peace hath her victories
no less renown'd than War."*



SCIENCE HAS ACHIEVED ANOTHER TRIUMPHANT VICTORY

BY SUBSTITUTING MECHANICAL IN PLACE OF MANUAL POWER IN THE PROPELLING OF CYCLES.

1921



In February sensible motor

cyclists and automobilists headed south on the 1,200km Paris-Nice triavicle—this lovely illustration appeared in *Le Petit Journal*.



Weighing in at Neuilly-sur-Seine for the Paris-Nice: Lessmann (Peugeot) and a plucky rider on a lightweight.



Another Paris-Nice competitor prepares for the start: Dooer on his Motosacoche.



The MCC's first

major trial of the year was the London-Land's End; Geoffrey Kerslake Gibbs, pictured aboard his impressive Harley outfit, was among the gold medallists. I'm obliged to Geoffrey's granddaughter for sharing these images of treasured family heirlooms—note the stylish Harrod's leather case.

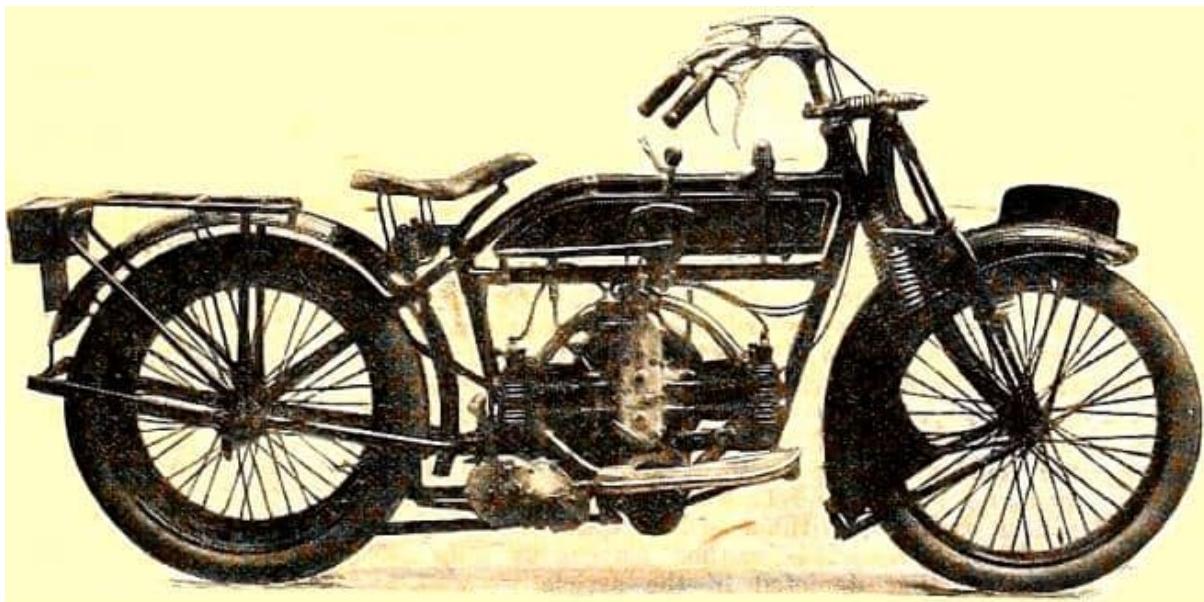
THE STRIKING DESIGN OF THE 500cc ohc Wooler TT model included a bright yellow fuel tank that extended round the steering head, inspiring Green 'Un editor Graham Walker to dub it the 'Flying Banana'. Wooler also won publicity by extracting 311mpg from a 350. Another lost secret of the ancients, it seems. *The Motor Cycle* used the Wooler for a trip to the TT: "The little machine was heavily laden with a bag containing all that was necessary for a week away from home, but, notwithstanding the weight carried and the fearful wind, quite a good average was made...During the 190-mile journey the machine had demonstrated that its steering was excellent, and that the riding position was comfortable. It was good at cornering, capable of very nearly 30mph average on level roads, and practically vibrationless; like most units of its type, the engine depends upon revolutions for its power, and if there is doubt about climbing a hill on top speed it pays to change early down to second, when up to 25 or even 30mph may be attained...Another test to which the Wooler was put was the Inter-team Trial for *The Motor Cycle* Cup, when it was taken round the course and climbed every hill successfully. This latter excursion was far more trying to the machine than the other 300 miles, and despite the rough

roads and steep gradients, it proved itself to be a handy, reliable little mount...the chief objection is against the carburetter, which was reminiscent of earlier days in that it required too much manipulation of the air lever to obtain flexibility and even running. Valve noise was also rather prominent...little could be said against the method of changing speed, which is accomplished by the foot, though a stronger spring against the plunger locking the second gear would be desirable. The machine is full of interesting points, and its designer, Mr Wooler, has embodied many ingenious features. The unit construction of engine and gear box is worthy of favourable comment. Small details have been carefully considered; for example, the position of the speedometer dial on the front forks, so that it is illuminated at night by the air holes at the base of the lamp, is a case in point."



A 2¾hp 350cc Wooler was good for 45mph but, unlike its 500cc TT counterpart, did an astonishing 311mpg.

MORE FLAT TWINS. ITALY produced the Fongro, Maxima and SAR; The Netherlands came up with the Eysink; Czechoslovakia built the Itar as a military mount though civilians rode it too.

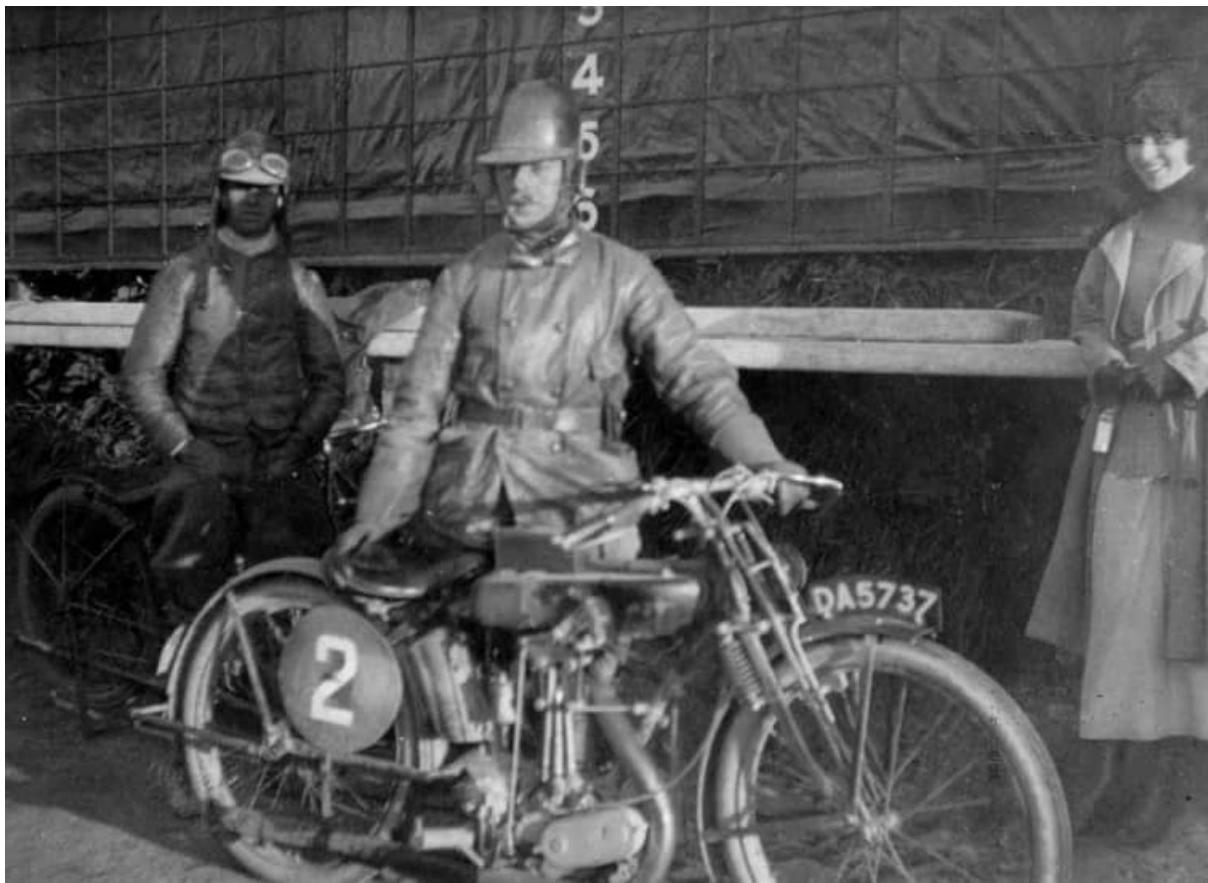


"A new Dutch flat twin. The Eysink, manufactured throughout at Amersfoort, Holland, and having a three speed gear and cylinders of 68x70mm (508cc)."

BRITISH REGISTRATIONS HIT 373,000, compared with 154,000 in the USA.

BELGIUM STAGED ITS FIRST motorcycle Grand Prix The 500cc class was won by a Norton, but Belgian-built Gillet, founded in 1919, took first and second spots in the 350cc class to huge acclaim. Gillet survived to the 1960s.

TT ENTRIES WERE MORE THAN double those of 1920, with 133 as against 61: 68 Seniors and 65 Juniors including 21 250s in the Lightweight class. The 44 350s comprised 15 marques, all but one of them works entries. They included seven Ajays, six Ivys; five apiece from Blackburne and Douglas; four Coulsons, three Martins and three Massey Arrans. Lightweight makes rose from two in 1920 to eight: six Levises, four Velos, three New Imps and two Diamonds. AJS, having replaced the 1920 two-chain/four-speed transmission with a sturdy three-speed box and were firm favourites in the five-lap Junior. AJS star Howard Davies finished the first lap of the Junior in first place a minute ahead of team-mate HF Harris, lost 12 minutes repairing a puncture which put him



Howard Davies made history by winning the Senior TT on his Junior AJS—and only a puncture kept him from the double. *This pic, (and the pics of Messrs Whalley and Williams that follow) appear courtesy of my old chum Bill Snelling who, from his lair on The Island, is custodian of a peerless cornucopia of TT photographs from 1907 to 2020. You'll find it at ttracepics.com, or track down his excellent book Isle of Man TT: The Photographic History.*

back in 11th place and rode like to demon the finish runner up behind another AJS team-mate, Eric Williams. AJS dominated the Junior, also taking 3rd, 4th, 6th and 8th places. Jim Whalley on the debutante Massey Arran was 5th man home to be cheered over the line as he finished despite a flat rear tyre—before copping a puncture at Windy Corner, he had taken the lead on lap three, ahead of a pack of five Ajays. Doug Prentice was 10th on his New Imperial 250 and took Lightweight honours at 44.6mph—nearly 4mph faster than Cyril Williams’ Junior winning speed the previous year. Runner-up in his first TT was Geoff Davison on a Levis; Davison went on to edit the annual *TT Special*. (He also wrote *The Story of the TT*; an excellent blow-by-blow account of the TT that is well worth tracking down). The 68 Senior contenders included 15 marques, 12 of them represented by factory entries. Norton fielded the biggest contingent, of 15; Sunbeam and Triumph had nine apiece. There were half a dozen Scotts and for the first time BSA took the field, also with a team of six. The race was a disaster for BSA—not one of its carefully prepared bikes finished the course, BSA took no further interest in racing for the next 30 years. But for AJS the Senior was a triumph. Having been robbed of victory in the Junior Howard



Jim Whalley on the Massey-Arran took over the lead in the Junior when Howard Davies stopped to repair a puncture on his AJS. On the last lap a burst tyre caused Whalley to crash but he still finished fifth, riding on a flat, stuck in second gear, bleeding from his nose and holding a broken exhaust pipe. This pic shows the flat rear tyre.



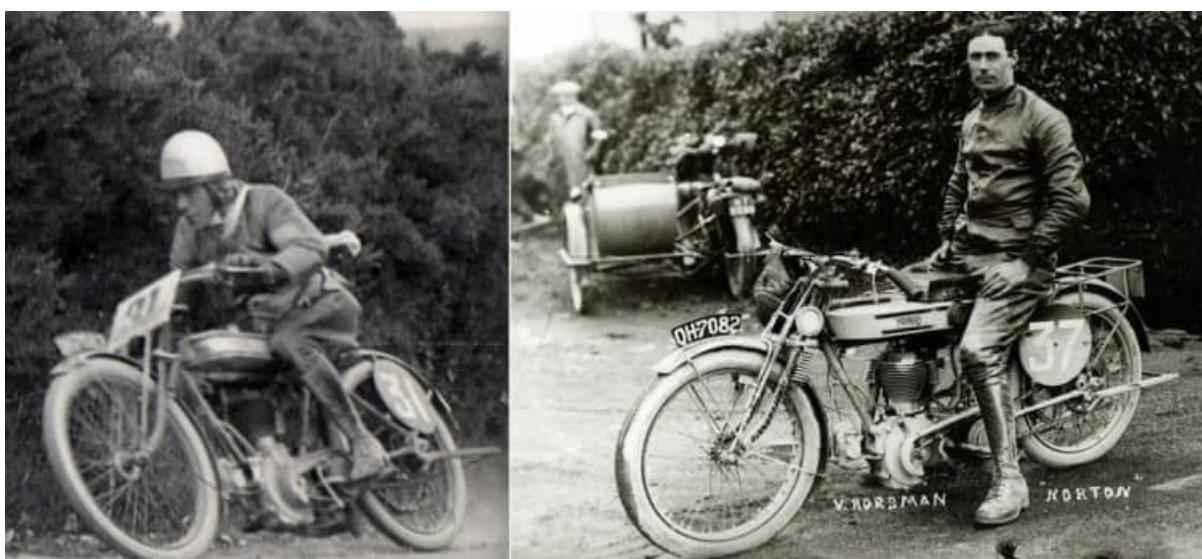
TT debutante Bert Taylor must have been delighted to join the BSA team but none of the Beezas finished the race.

Davies rode his 350 in the Senior. On the first lap he held 2nd place behind Freddie Dixon (Indian). Lap two and Dixon dropped back to 4th; FG Edmond took the lead on his Triumph but Davies held on to second place. George Dance (Sunbeam) led at the end of lap three—and still Davies hung on to second place. Lap four and another Sunbeam took the lead, in the capable

hands of Alec Bennett, but with Davies hot on his heels. And when Bennett dropped back Howard Davies rode his Junior AJS to victory in the Senior at 54.49mph, nearly 2¼min ahead of the fastest 500 though Edmond's Triumph did make the fastest lap at 56.44mph. Freddie Dixon was runner-up with Hubert Le Vack on another Indians 3rd. Alec Bennet was 4th, JA Watson-Bourne (Triumph) was 5th, followed by JL Mitchell (Norton), FG Edmond and George Dance, ahead of two more Sunbeams ridden by Tom Sheard and FC Townshend. Them came a pair of Nortons ridden by DS Alexander and JW Hollowell.



Billy Hollowell finished the Senior in 12th place.



JW Shaw and Victor Horsman both rode Nortons in the Senior; neither finished the course.

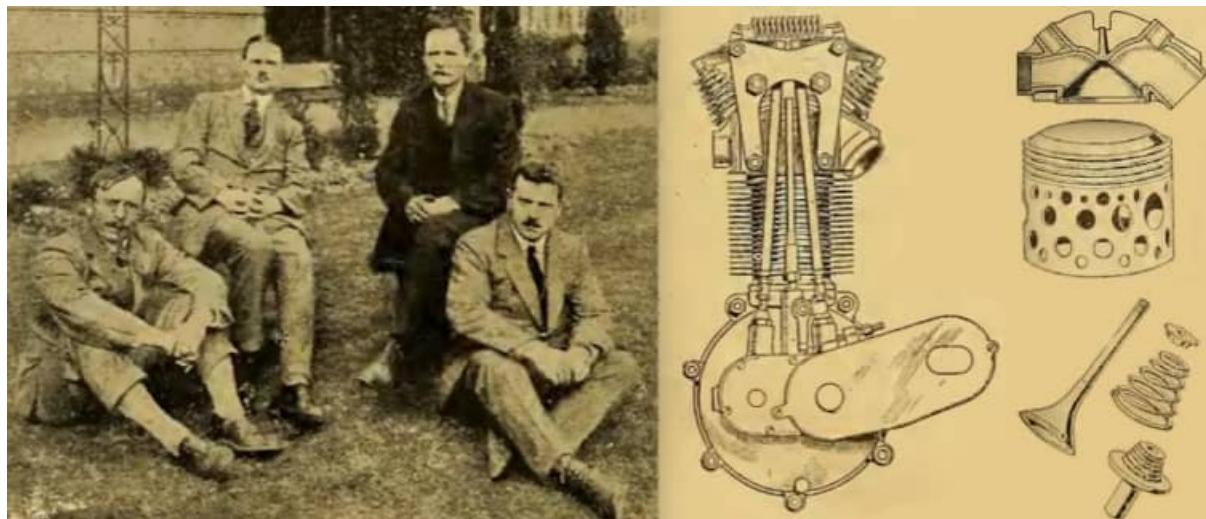


Despite the caption painted on the original image, Messrs Thomas and Wade rode in the Junior. J Thomas (Massey Arran) failed to finish but O Wade (AJS) finished sixth.



Eric Williams led the AJS gang over the line in the Junior TT.

"IT IS NOW HOUSEHOLD NEWS throughout the world that, in addition to obtaining six out of the first seven places in the Junior Tourist Trophy, a 350cc AJS, ridden by HR Davies, succeeded in defeating the pick of the world's 500cc machines in the Senior event... Possibly because they realise that, though their marvellous little engine was good enough for this year's races, it will not be fast enough for the 1922 events, the brothers Stevens are already at work on improvements and modifications. This is the right spirit to adopt, for though at the present moment the TT AJS can hardly be considered a standard machine, the firm attach considerable importance to the lessons learned in their racing experience, and much of the knowledge gained by this means is used when designing standard productions."



"The men behind the AJS. From left to right, seated: Mr AJ Stevens, MIAE, production manager; Mr H Stevens, MIME, AMIAE, senior managing director. On ground: Mr G Stevens, AMIAE, commercial manager; Mr J Stevens, jun, AMIAE, manager experimental department. (Right) Valve side of the 2½hp AJS, showing operating mechanism and return spring for push rods and tappet gear. Section of the cylinder head. Light steel piston, liberally drilled, and carrying four narrow rings. The hollow trumpet valve and taper valve spring. The valve guide has six radiating ribs machined on the exposed end."

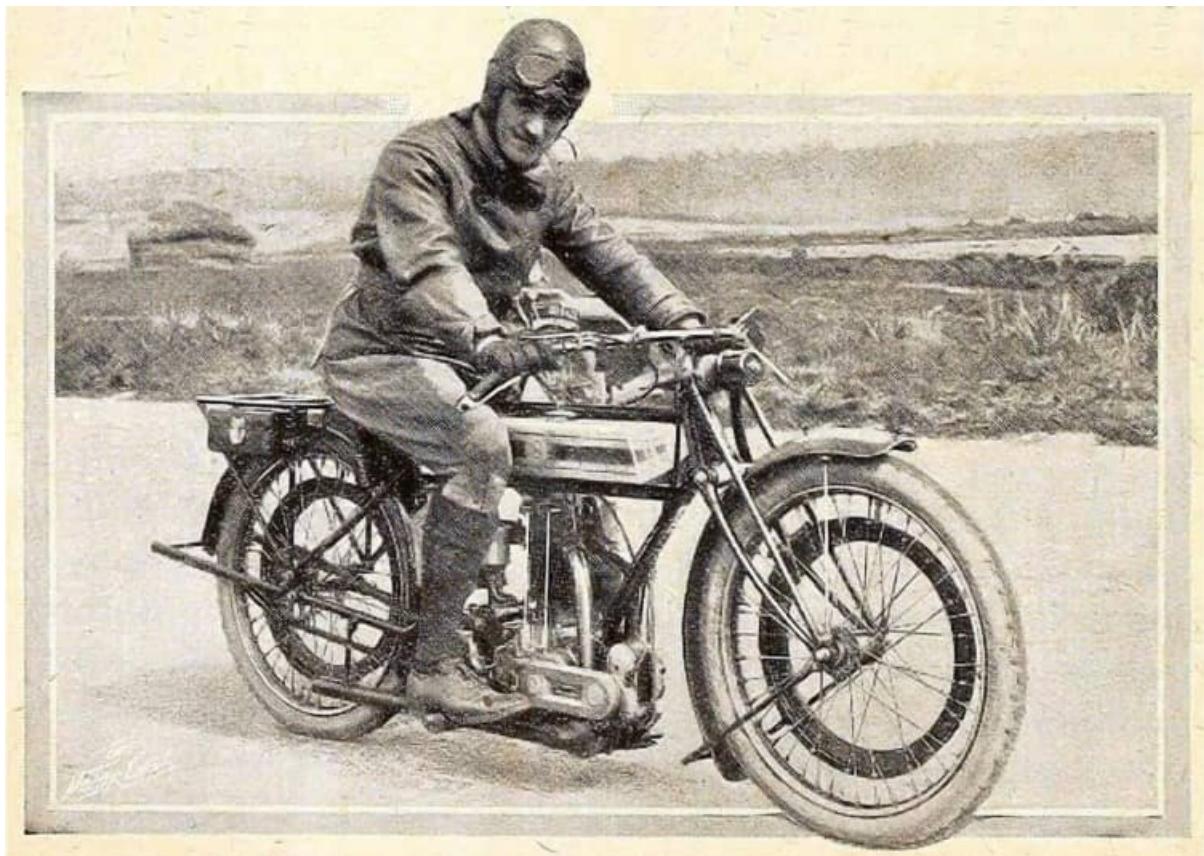


Beautifully restored, here's the 250c New Imp that carried Doug Prentice to victory in the Lightweight TT at 44.82mph.



Following an unsuccessful four-valve/ally-head design for a TT racer in 1920 BSA went back to the drawing board and developed an ohv two-valve model for the 1921 Senior featuring unlubricated vertical valves and knife-edge pivots for the rockers. Six bikes entered; none of them made it to the end of the second lap.

TRIUMPH BUILT ON THE SUCCESS of the wartime 'Trusty' with the Harry Ricardo-designed 498cc Model R 'fast roadster'. The 'Riccy' with its innovative central plug light alloy head and four-pushrod-operated overhead valves would become as famous as the Trusty. Major Frank Halford used one to set a 500cc world hour record at 76.74mph, along with the 50-mile standing start (at 77.27 mph) and the one-mile British record (at 87.8mph). JA Watson-Bourne and FG Edmond on Ricardo Triumphs finished 4th and 7th in the Senior TT.



This Triumph Ricardo, with GJ Shemans in the saddle, was holding on to 5th place in the Senior when it ran out of oil at Quarter Bridge on the last lap. He rattled on to finish 16th.

A HARLEY RIDDEN BY Otto Walker became the first motorcycle to win a race at an average speed of over 100mph. The first British ton-up kid was Douglas Davidson, who set the first 100mph lap of Brooklands, also on a Harley Davidson (but no relation).

ALEC BENNETT WON THE FRENCH Grand Prix for Sunbeam after a Triumph Ricardo ran out of fuel. Another Sunbeam was runner-up with a Riccy third.



Pictured on his ohc 350cc Indian outside the new Montlhery race track is Francois Gaussorgues. He failed to finish but went on to become French national champion in the 250cc, 350cc, and 500cc classes.



Sidecar competitors at the French Grand Prix: Lacour and Guiget, both on Orlials.

AMONG THE DEBUTANTES FROM the USA was the Neracar, designed by former Cleveland motorcycle designer CA Neracher and backed by razor king Gillette (so the Neracar could be seen as US alternative to the British Wilkinson TAC). It was marketed as a two-wheeled car; features included a five-speed transmission, full enclosure and hub-centre steering. engine enclosure, a 221cc two-stroke engine, and friction drive from the flywheel to a countershaft carrying the rear sprocket. Neracars were also built in Britain under licence by Sheffield-Simplex with 285cc two-stroke or 350cc four-stroke Blackburne engines and the option of a proper three-speed gearbox courtesy of Sturmey-Archer. Other options included rear springing, a screen and a bucket seat. Comfy, slow and safe, the innovative Neracar never caught on. It only stayed in production for five years.



The Neracar put comfort over speed but was easy to handle and sure-footed.

FERODO INTRODUCED A LONG-LIFE dry-plate clutch using asbestos friction plates.

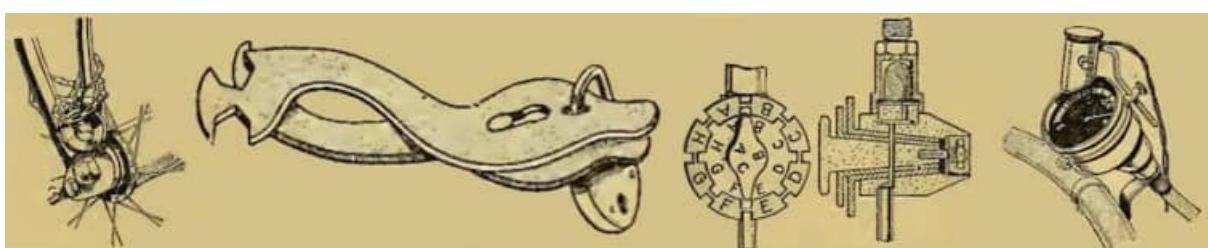
ITALY CAME UP WITH THE 477cc V-twin four-stroke Borgo: a potent racer boasting an ohc four-valve design with unit construction and oil cooling. Less radical but longer lived was the new Benelli, with a humble 98cc two-stroke lump; Bianchi came up with a fast 596cc four-stroke V-twin.

AS A CHANGE FROM ITS SUCCESSFUL ohv V-twins Anzani turned to motorising bicycles with a 75cc belt-drive four-stroke that returned better than 200mpg with a top speed approaching 40mph.

REX JUDD SQUEEZED 92.4MPH out of a sv Norton 16H, just before it was superseded by the ohv Model 18.

NO FALSE MODESTY in this advert: "World's record ride... the onward rush of science has never been so clearly demonstrated as in The Excelsior Motor Cycle... 5 miles in 8m 34s!

MR WATANABE OF OSAKA designed and built the first ohv engine made in Japan. Displacing 150cc it worked reasonably well but was gutless so he redesigned it as a 300 coupled with a two-speed transmission and chain drive. He called his machine the Sanda, or Thunder.



The Dot "thief-proof" padlock and chain was marketed by Dunhills. Two flat spanners were designed, by AH Hunt Ltd of East Croydon, to be locked together in a wheel to foil bike thieves.

The Boot petrol tap incorporated a combination lock—without the key letters no fuel would flow. As well as illuminating the speedo the Nestill could be detached and used as an inspection lamp.

"UNTIL SOMEBODY DEVISES A SPECIFIC term," said Ixion, I use 'magneto lighting' to indicate those electric lighting systems which embody no expensive dynamo, but use the surplus output of whatever ignition device is fitted. I know I shall be accused of gross exaggeration, but I am going to say that a perfected outfit of this class revolutionises utility motor cycles, and constitutes just such another landmark in the industry as the advent of the spray carburetter or the high-tension magneto."

THE TOHATSU ENGINEERING COMPANY was set up in Japan; its two-stroke engines would power so many Japanese marques that it might be seen as the oriental Villiers.

WELLS BENNETT SQUEEZED 1,562 MILES into 24 hours at the Tacoma Speedway near Washington DC to average 65mph on a four-pot ohv Henderson K de luxe.

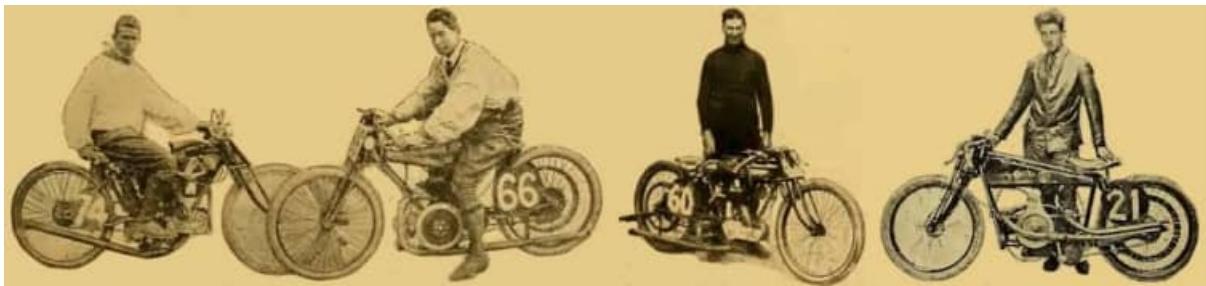
""SEVEN AM IS TOO EARLY a starting hour to attract a crowd, and few except those most, intimately concerned arrived at Brooklands in time to see the great 500 mile race for Capt Miller's gold cup. The sun had barely dispersed the dawn mists when the men lined up in four rows just past the fork. Each class was distinguished by flimsy overall jackets of a different colour. The front row was composed of the 250cc riders (white jackets) and the 350cc (blue). The big 500cc class (yellow) filled the second line. Next came the select 750cc company—eight in number—with green overalls; and last of all the big 1,000cc twins resplendent in red. The entire body of starters, 65 in number, formed a most imposing array, and the scene when they all got away simultaneously at a common signal absolutely baffled description. The



"The 500-mile race at Brooklands. Probably never before has such a field been seen at Brooklands for a single event. Here are the 64 competitors starting in the race which was destined to be a remarkable testimony to the reliability and speed of the modern motor cycle."

sharp crack of so many well-tuned exhausts, the clouds of Castrol mingling with the mists of early morning, the semi-comic aspect of so many running and leaping men, formed a spectacle which repaid the company for its early rising...The gold cup promised to be 'easy fruit' for the American entries, as a 1,000cc engine can always beat smaller machines on Brooklands, and our British twins mostly emanate from comparatively small factories...Perhaps the most amazing performances were registered in the junior classes. It was bold of the Ivy people to enter a single standard machine; it was superb to win with it at over 51mph. Similarly the 250cc.

New Imperial was revving very very fast for nearly ten hours, and sounded as crisp in the exhaust at the end as it had done at the beginning. A great race, and the honours all went where they were thoroughly deserved and pluckily earned...Before any really important event there is always a tendency to exaggerate the hardships of



"B Kershaw (New Imperial-JAP), winner of 250cc class. His average speed of 50.34mph for the 500 miles is a fine tribute to the little machine. N Norns (Ivy), whose performance really stood alone. This standard two-stroke beat all the 350cc four-strokes, as well as capturing the 500-mile record. Victor Horsman (3½hp Norton), winner of the 500cc class. His speed averaged 62.31mph. EW Parham with the short-wheelbase Coventry-Victor; he was first in his [750cc] class at an average speed of 56mph."

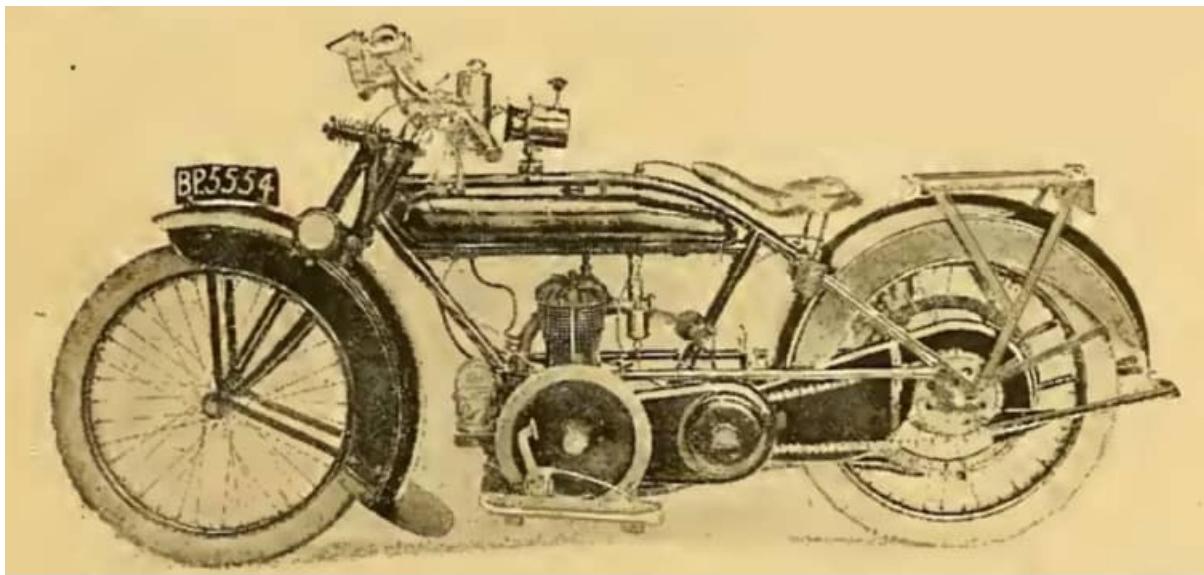
the test, and...it was freely mooted that not 5% of the starters would finish the 500-mile race at Brooklands. However, the prognostications of the pessimists came to naught, and 33 machines out of 64 starters completed one of the severest trials ever provided, and incidentally set up many new records during the process. It was expected that a big twin would carry off the premier award, and this type secured the first three places [*mind you the twins in question were an Indian, a Harley and another Indian*]. A sidevalve Norton Brooklands Special took fourth spot [*Since his pre-war exploits Dan 'Wizard' O'Donovan, now Norton's chief tuner, had been busy: the Brooklands Special was now certified to do 75mph*]. Next came a well tried 500cc machine. It was in the smaller classes that the greatest surprises occurred, the 350cc class being won on a two-stroke with considerable ease, after a magnificent display of consistent riding, while the speed of the winning 250cc machine was within a fraction of the second 350cc. Two-strokes ran with wonderful regularity, and definitely refuted the suggestion that this type of engine is unable to stand prolonged speed work. On the whole, the race provided a marvellous testimony to the endurance of the modern motor cycle. Though the excellence of the British single was demonstrated once again, the absence of a fast British big twin was sadly obvious." Did you notice the description of "the sharpe crack of so many well tuned exhausts"? It seems the noise of 60-plus bikes running flat out on open pipes for more than seven hours was more than local residents could bear; all subsequent races at shorter and quieter as competitors were required to fit silencers—cue the 'Brooklands can'.



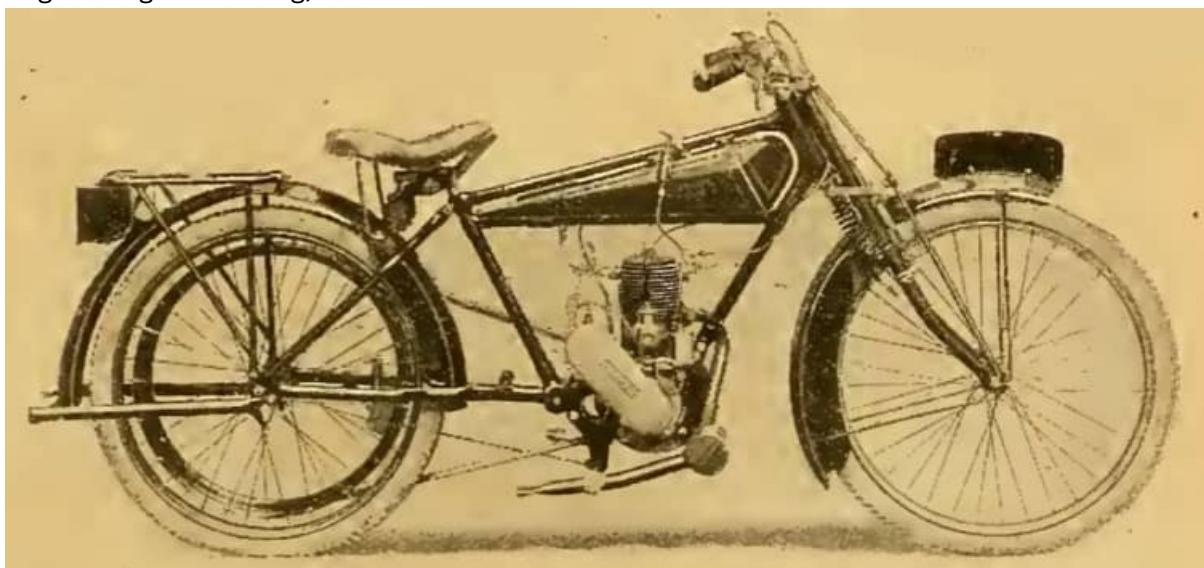
Bert Le Vack won the only Brooklands 500-miler for Indian, competing the course in 425 minutes to average 70.42mph.

IXION MADE NO BONES about his reaction to the 500-miler: "I really marvel that more of the firms who try to carve out for themselves a notch in the British motor cycle industry do not seek to develop a British super-twin of the 7-9hp variety. In this type we are still absolutely outclassed by the American Harleys and Indians. It was frightfully humiliating to watch the Yankees romping away from our own machines, and nauseating to watch two big British twins slowly reeling off their concluding laps several hours after our better singles had finished the distance...In the race our principal representatives were the Matchless (a standard sidecar type, assembled on the previous day, and necessarily quite untuned from a track standpoint, even if it had been designed for racing, which it was not) and the Zeniths—a mixed lot with a variety of engines, and all of them equipped with the belt drive. When we take a particular type of motor cycle seriously, we can lick creation with it. We have never taken the 7-9hp seriously."

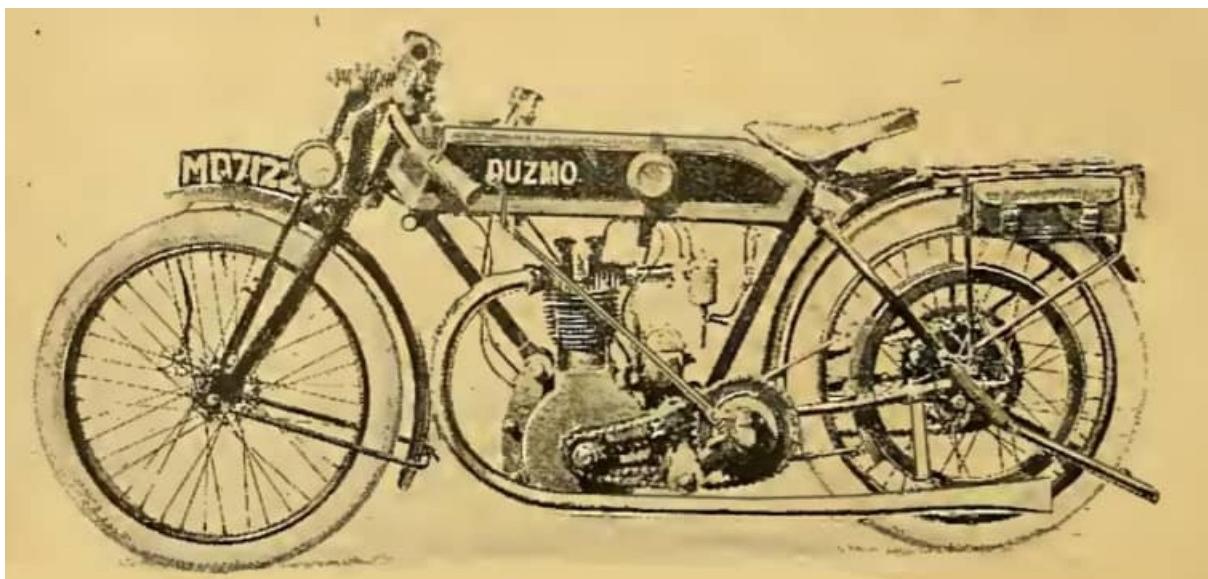
"ALTHOUGH AUTUMN AND OLYMPIA Showtime sees the birth of the greater number of new models, there is at present 'certain liveliness' amongst manufacturers—a hopeful sign considering the industrial situation generally. New designs are appearing under both new and old names to an unusual extent for this season of the year [July]..."



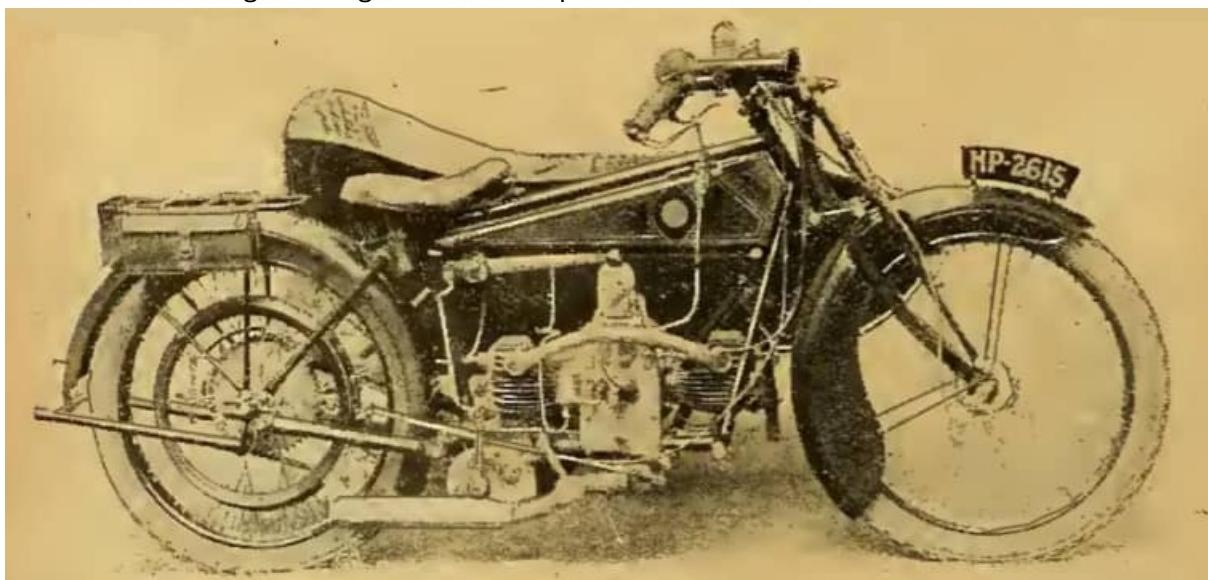
"In some respects the XL is reminiscent of American design, eg the seat suspension, carrier, and mudguard stays." This debutante, with a choice of Blackburne or JAP 4hp engines, proved itself with an ACU-observed test from John-o-Groat's to Land's End. It was made by Norfolk Engineering of Worthing, Sussex.



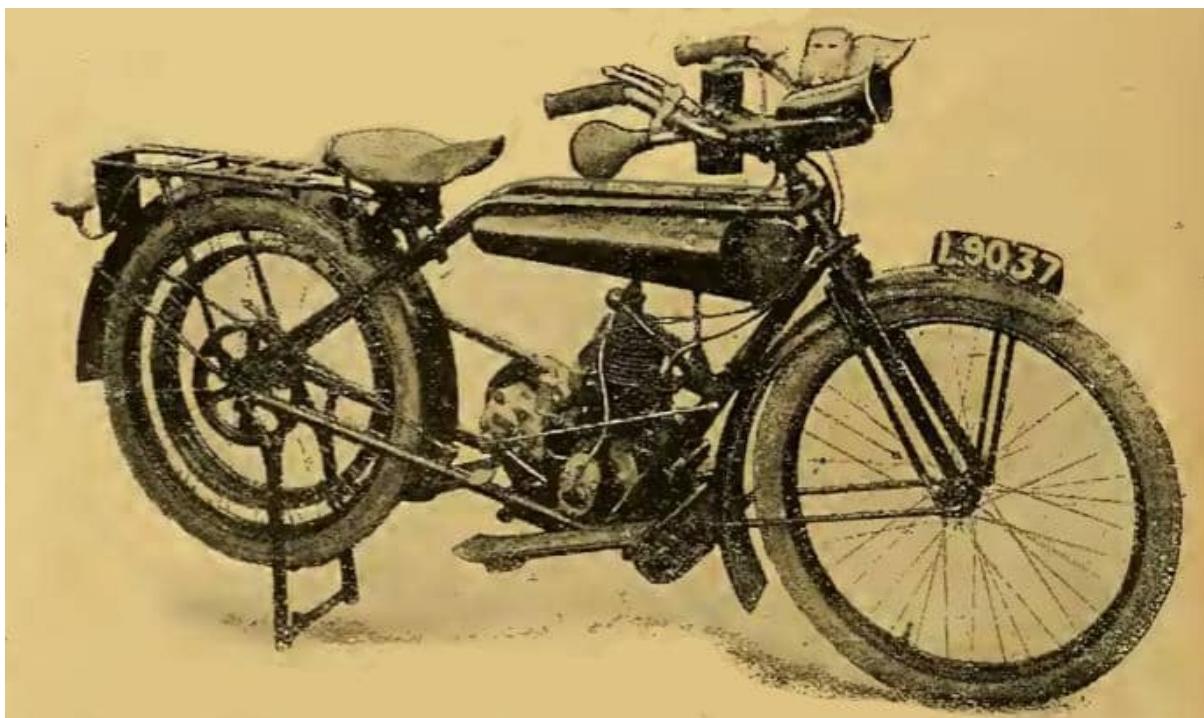
Calthorpe's latest, a single-speed belt-drive two-stroke, was aimed squarely at the utility market. "The new model is most attractive in appearance, but is quite distinctive. All non-essentials have been eliminated from the design, which, by its very simplicity, promises great reliability."



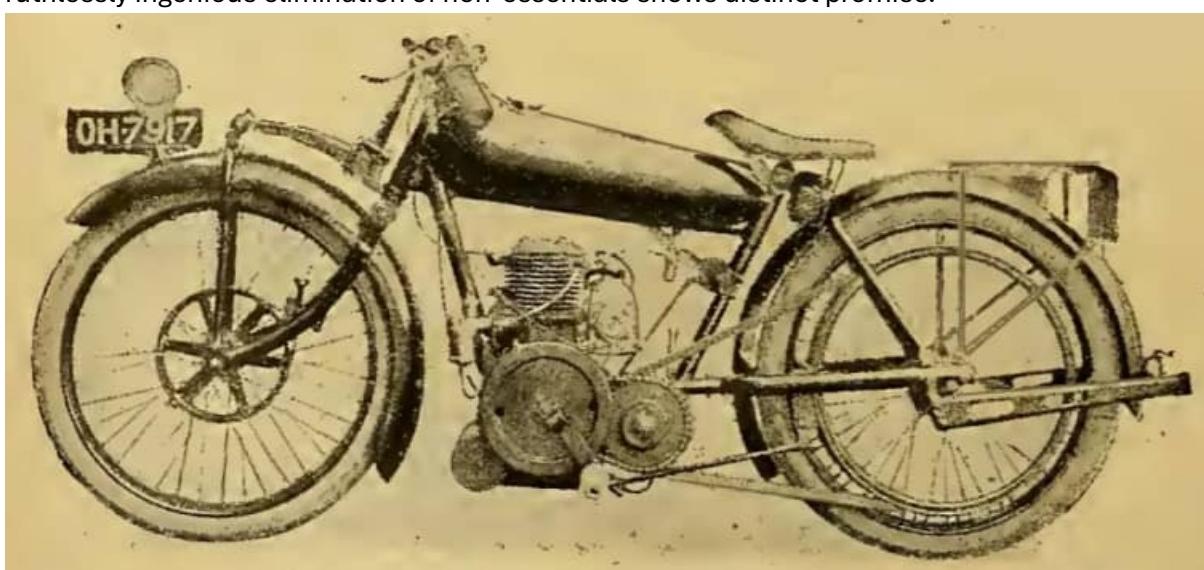
"An aspirant to honours in speed events at Brooklands and elsewhere—the 3½hp Duzmo. The standard sporting model will have a direct belt drive." The bike pictured was specially prepared for the Brooklands 500-mile race. The reintroduced 491cc ohv sportster came with a "splash lubrication system—previously a pump was located in the base of the crank case, and circulated oil through the engine from a sump in the crank case".



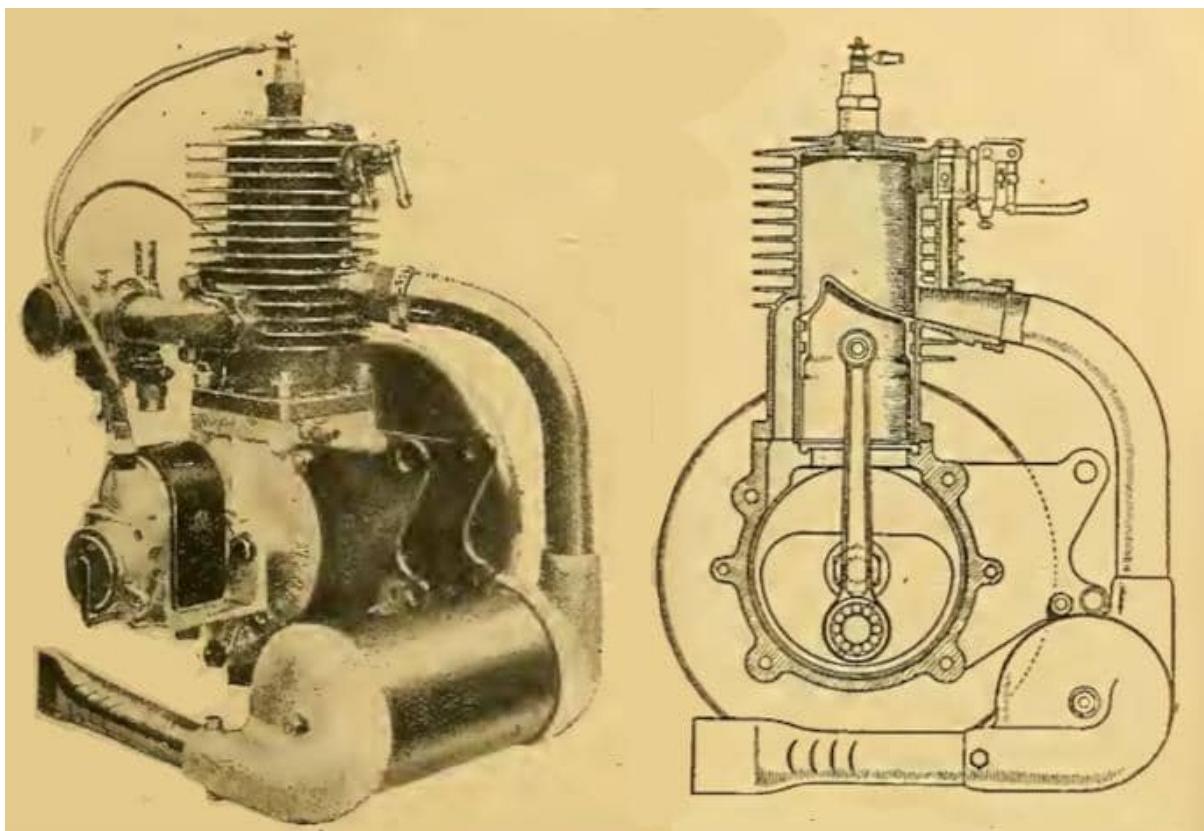
"By locating the gear box under the rear cylinder, the designers of the new 6hp Coventry Victor have considerably reduced the wheelbase...Although no compression release of any sort is fitted, the new model is an exceptionally easy starter from cold, as a short test run proved. The machine steers very nicely, and the engine is, like all really good flat twins, almost vibrationless."



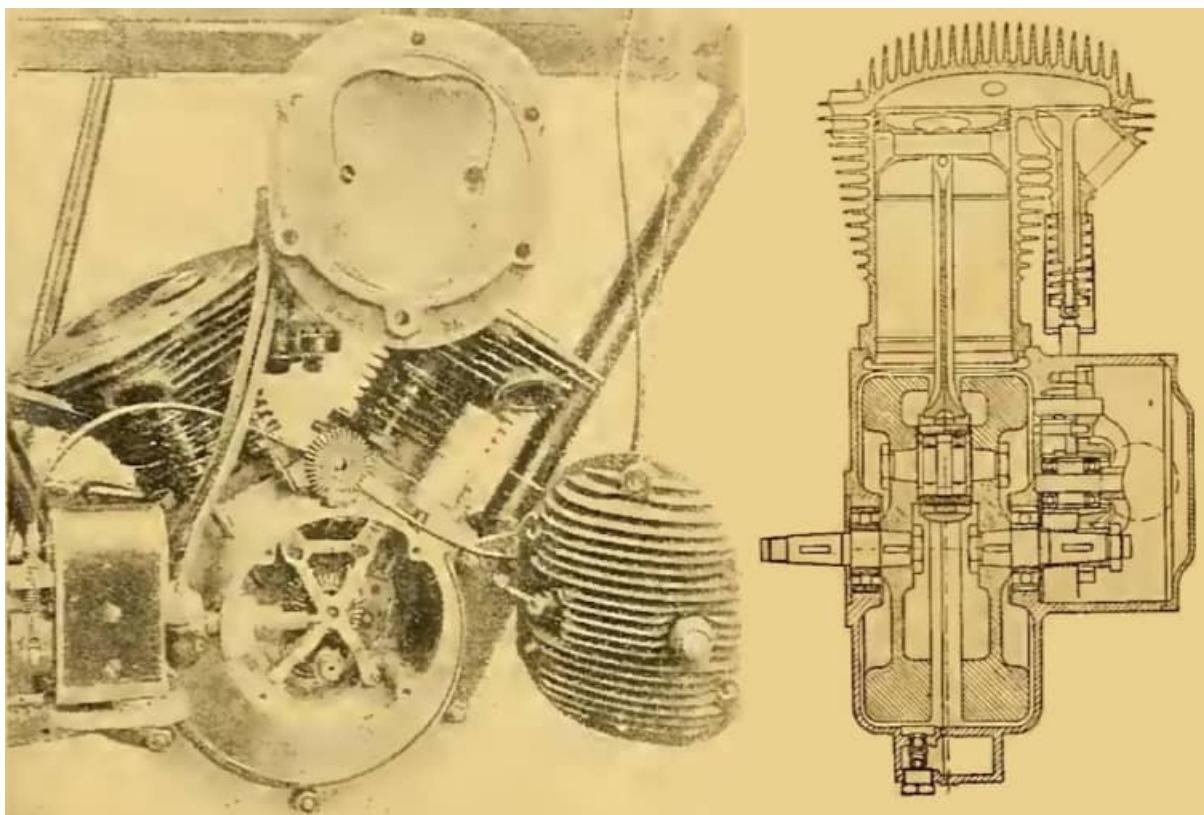
The Wizard hailed from Cardiff. "The idea behind the design has been to produce a motor cycle which would be easy to construct and assemble, with consequently a corresponding reduction of cost. The duplex frame consists of four separate tubes which are bolted to the steering head, and to the rear fork ends. Unit assembly of engine and gear box is employed, for these components are bolted to a steel plate cradle, which is completely dropped into a lower angle of the frame and secured by two widely spaced cross bolts, thus making for rigidity...the ruthlessly ingenious elimination of non-essentials shows distinct promise."



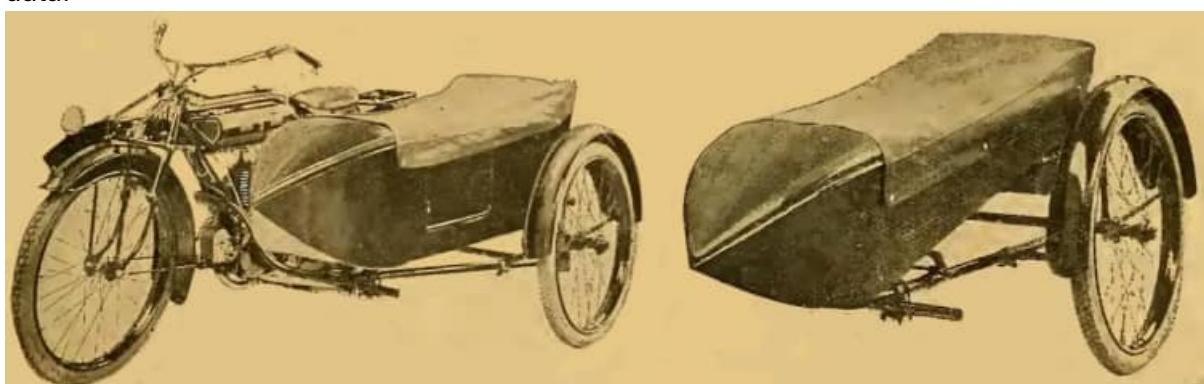
"Engined with the now well-known 350cc Precision two-stroke, the new Sports model, in its final form, differs in many respects from the original Beardmore-Precision, for it was decided that there was a large demand for a light, speedy solo mount...[it is] 701b lighter than its spring frame forerunner."



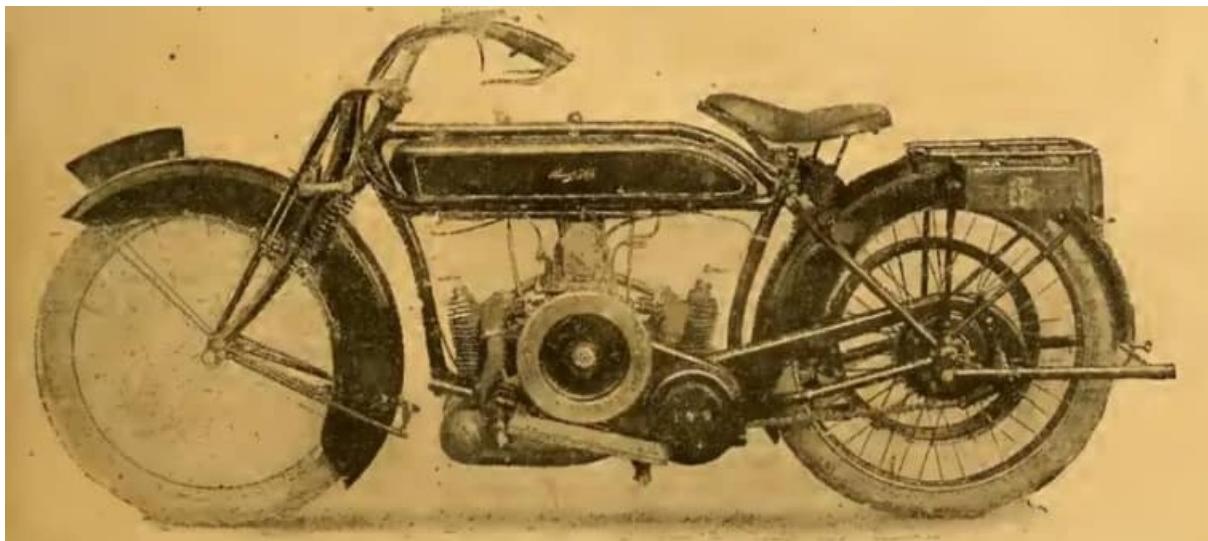
"AW Wall of Birmingham, may justly claim to be one of the oldest purely motor cycle firms, for they did not migrate from the cycle trade. Moreover, they have been responsible for many striking innovations since 1904...Latterly, two-speed gear boxes, frames, hubs, and other components have been the firm's specialities, but a departure is now being made in the form of a thoroughly up-to-date 2½hp 269cc two-stroke engine unit to be known as the Liberty...We had a short run on a machine fitted with the Liberty engine, and found it to be smooth in operation and lively."



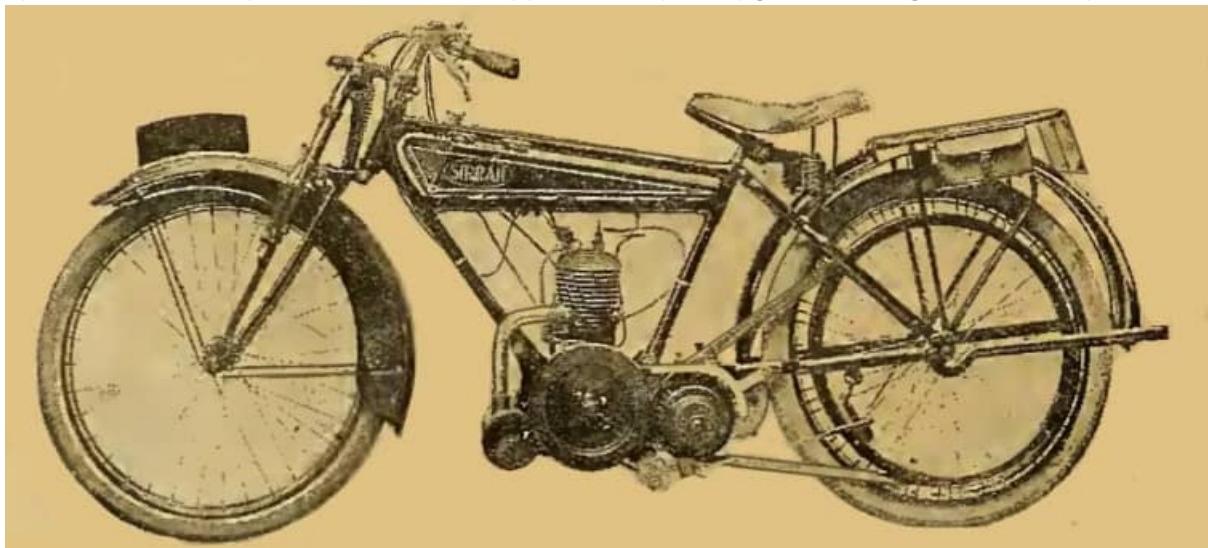
"The unusually large and unconventionally shaped aluminium combustion heads with the new 10hp V-twin B&H engine is equipped are its most noticeable peculiarity, for they do not accommodate valve caps, and, in consequence, the size of the cylinders is deceptive. The bore and stroke are 80×99 mm. (996cc), and side-by-side valves of 1½in diameter are used...The manufacturers entered one of these engines fitted in a Zenith frame for the 500-mile race at Brooklands. This really constituted a trial from which the makers hope to gain some useful data."



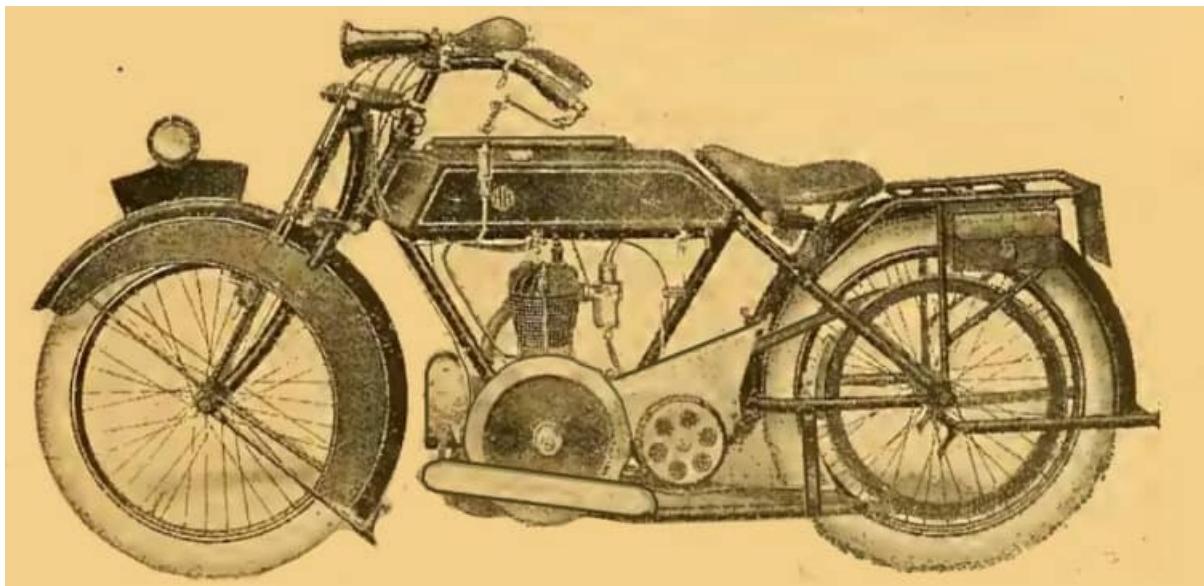
"There are very few lightweight outfits available for those who prefer the four-stroke engine, and the Ruby Cycle Co, of Moss Lane, Altrincham, have filled this gap by the introduction of two new models. Engined with the Royal Ruby 2¾hp engine of 349cc, the motor cycle part of the outfits is practically the same as the solo sports model, but the sidecars differ to some extent. One has a side door and a body conforming to accepted ideas of what a touring sidecar should be, and the other is on sporting lines."



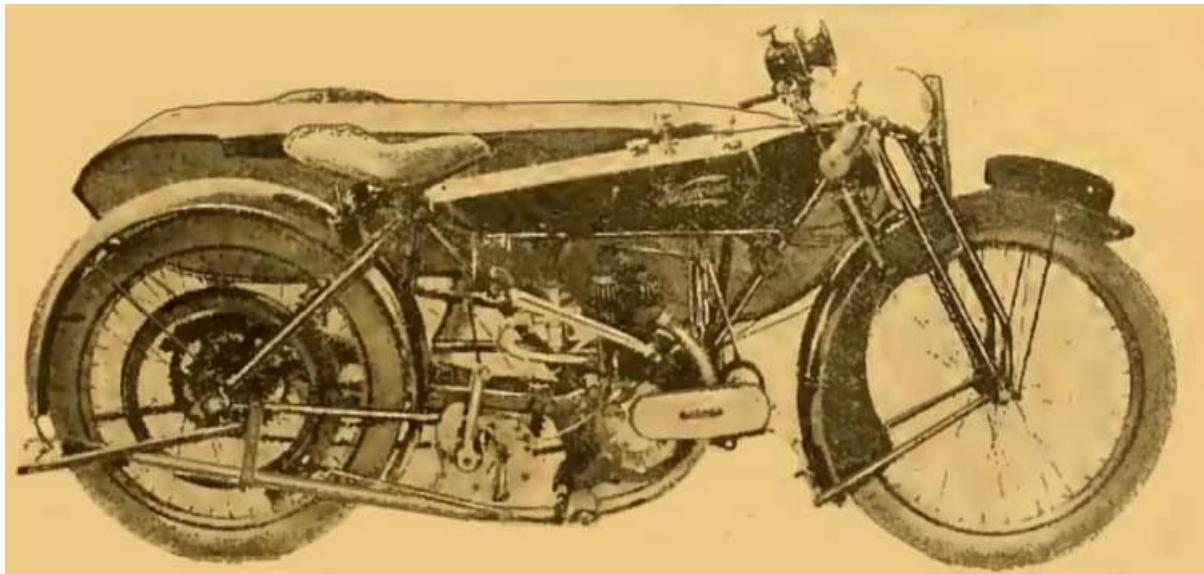
"The 4½hp Humber flat twin, a mount that answers splendidly as a double-purpose machine. The engine, which has a bore and stroke of 75x68mm (600c), is particularly smooth, yet sufficiently powerful for sidecar touring in any district...On a sixty-mile run at a good average speed fuel consumption worked out at approximately 75mpg; but the engine was not spared."



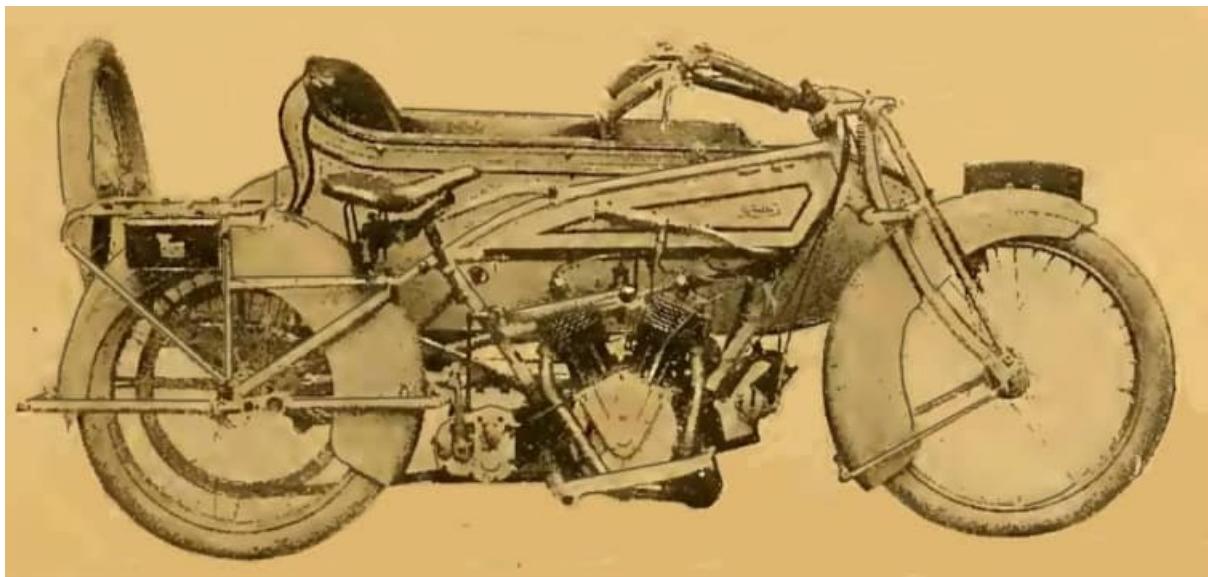
"The Sirrah is a well-made Union-engined motor cycle produced by a well-known concern for several agents...with its very complete specification (including Brampton forks, Burman two-speed gear, clutch, and kick-starter, Avon tyres, and sporting sidecar) it is becoming very popular."



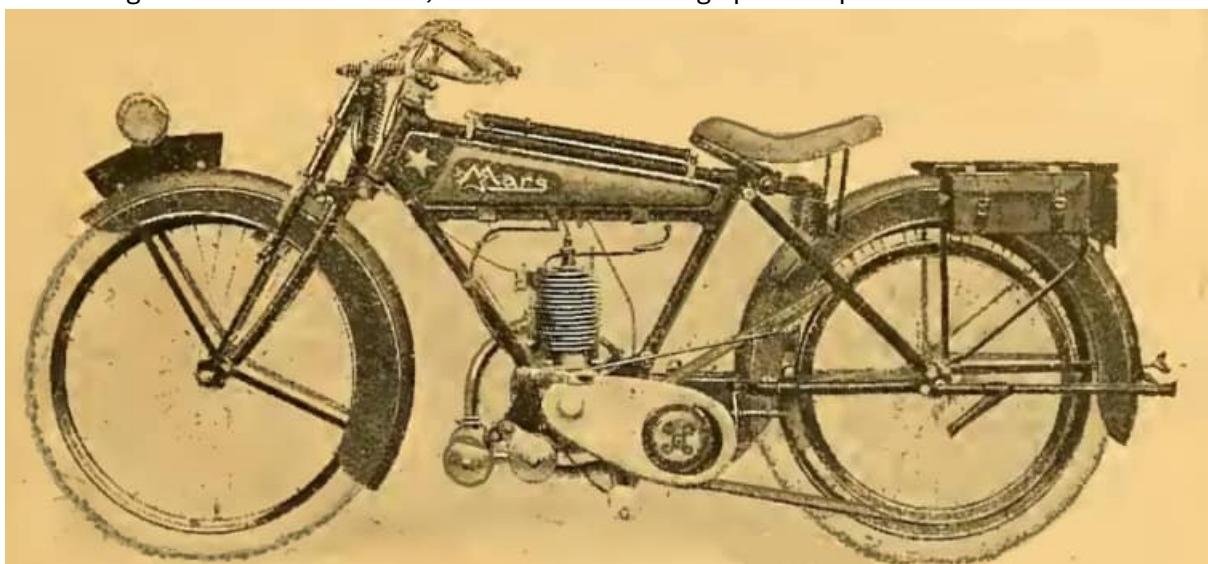
"The HB, made by Hill Bros, of Wolverhampton, is a good-class production, and quite above the average machine built up of proprietary units. The frame details are exceptionally good, the mudguarding and brakework especially so. A saddle tank fits over a well-designed frame having straight tubes. Two models are made, having 2½hp and 4hp engine and two and three-speed gear boxes."



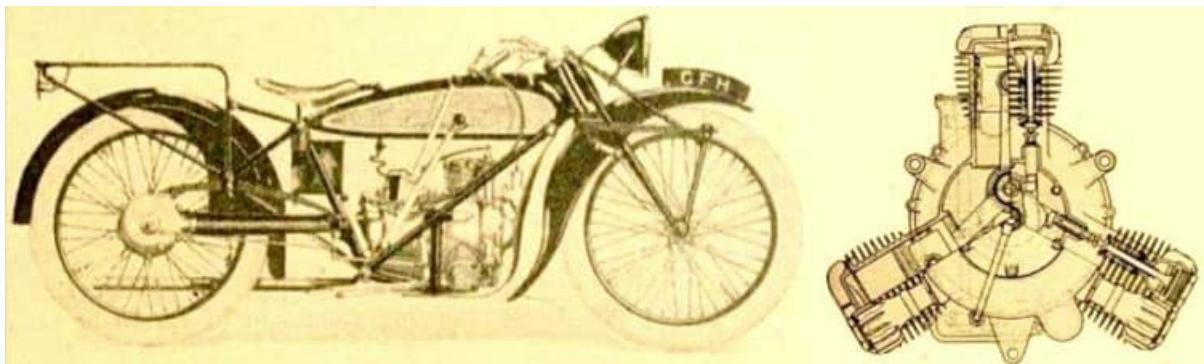
"The Sheffield-Henderson is now marketed as a sporting sidecar outfit. In this case the rear frame is rigid, and in conjunction with a specially tuned Blackburne engine, a TT Amac carburetter, and a Sturmey-Archer close ratio gear box (if required), it makes a very attractive sidecar mount."



"Quite one of the handsomest sidecar outfits on the market, although following more or less standard lines, is the Vindec...The motive power is provided by an 8hp (976cc) JAP engine. In this model the transmission is by chain to a Sturmey-Archer gear box, and thence by belt to the rear wheel...In future models all-chain drive will be provided if desired. Detachable and interchangeable wheels are fitted, the belt drum running upon a separate hub of its own."



"The Mars is a newcomer, but is produced by an engineer who, up to quite recently, has been works manager of old-established motor cycle firms. One model is made, but offered with Villiers, JAP or Blackburne engine, single-gearred, or equipped with plain two-speed or two-speed clutch and kick-starter. Equipment and finish are quite up to the best standards. For example, Brampton, Bi-flex forks with two vertical springs are fitted, and all other proprietary items are of the best class."



This three-cylinder radial, pictured in *The Motor Cycle*, never developed further than the drawing board, more's the pity.

LIKE ABC MANUFACTURER SOPWITH, Gnome et Rhône produced aero engines during the Great War so when it began to produce ABCs under licence in France Gnome et Rhône didn't only convert them from imperial to metric measurements, it upgraded the flat-twin engine with roller big-end bearings and upgraded the lubrication system. But when the MC de France staged a 183-mile Grand Prix at Provins, *The Motor Cycle* reported: "Competition was exceedingly keen, particularly between the Alcyon, Peugeot, and ABC teams, and not until the beginning of the last of the sixteen laps could the winner be forecasted with any degree of certainty. For a time it looked as if the real struggle would be between Alcyon and Peugeot. The Peugeot is a vertical twin, the two cylinders being set very close together, and the eight overhead valves being operated by two camshafts with a train of pinions...The Alcyons, on the other hand, are V-twins, with a couple of overhead valves inclined in the head of each, and operated by push rods and rockers. The Griffons are also overhead valve twins, while the ABC machines were practically standard productions. At the end of the first lap, Naas, who was looked upon as the crack rider for the ABC, came in excitedly, and asked for a cylinder head joint. No such article existed at the pits, but a man was sent post haste to Provins to get what was required, while Naas, after grumbling considerably, changing a plug, and looking over his machine generally, went away and rode hard without another stop. The man who had run four miles under a broiling sun to get the washers, came back and then fell



"The winner of the Grand Prix Motor Cycle Race, held last week at Provins, crossing the finishing line after riding 183 miles at an average speed of 53mph. His mount is a French built ABC."

utterly exhausted, while the washers he had brought lay unrequired on the bench...Desvaux's blue Alcyon was leading when, on the hairpin turn near Provins, the rider discovered he was out of fuel. Desvaux, who would have been a wonderful recruit for the Lifeguards, lifted up his machine, and shook it to assure himself that the tank really was empty, then ran back to the main grandstands—a distance of a mile—to get a can of petrol. Meanwhile, Naas, another giant,

had been driving hard, and, by reason of this incident—for the Alcyon man lost eight minutes—had no difficulty in getting into the lead. Desvaux was soon in action, but had to be content with third place behind his team mate Jolty. Barnard (on an ABC) came in fourth, with Bartlett (an Englishman) fifth on the same make of machine. Pean, the Peugeot crack, only finished sixth. The full ABC team finished, and one of them made the record lap at an average of 61½mph...The 1,000cc sidecar race was won by Andre on a Harley-Davidson, followed by Bache on an Indian, with another Indian in third place."

"WE HAVE HEARD OF A MAN who recently bought a Government motor lorry for £28, which in itself was somewhat of a bargain. When, however, he found time to examine it he discovered that it contained six brand new motor cycles. History does not relate what action he took in the matter."

"RECENTLY A READER (MR HUGH Sharrock, of Melling) towed a 44-ton barge along the Leeds-Liverpool canal for the distance of one mile, using a 7-9hp Indian sidecar. A number of people witnessed the feat, and now Mr Sharrock would like to know if it constitutes a record haul for a sidecar outfit."



"A meet of members of the Doncaster MCC prior to a recent run. Such a big gathering denotes an enthusiasm which augurs well for the continued success of this go-ahead Yorkshire Club."

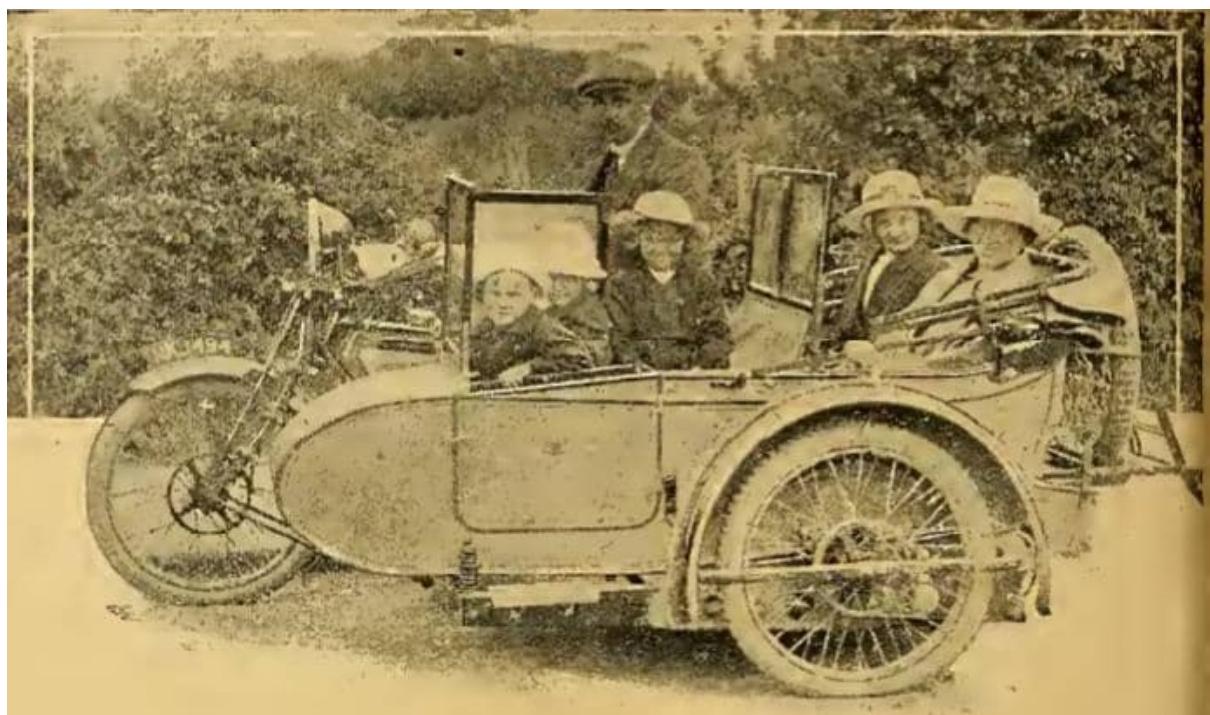


Lieutenant C Plummer (3½hp Sunbeam) was one of four riders to share top honours in the Arbuthnot Trophy Trial, held for members of the Senior Service in memory of Rear-Admiral Sir Robert Arbuthnot, a well respected motor cyclist who had died at Jutland. All four had their

names engraved on the trophy; Lieutenant TH Black (4hp Triumph) won the draw to hold on to it for a year.



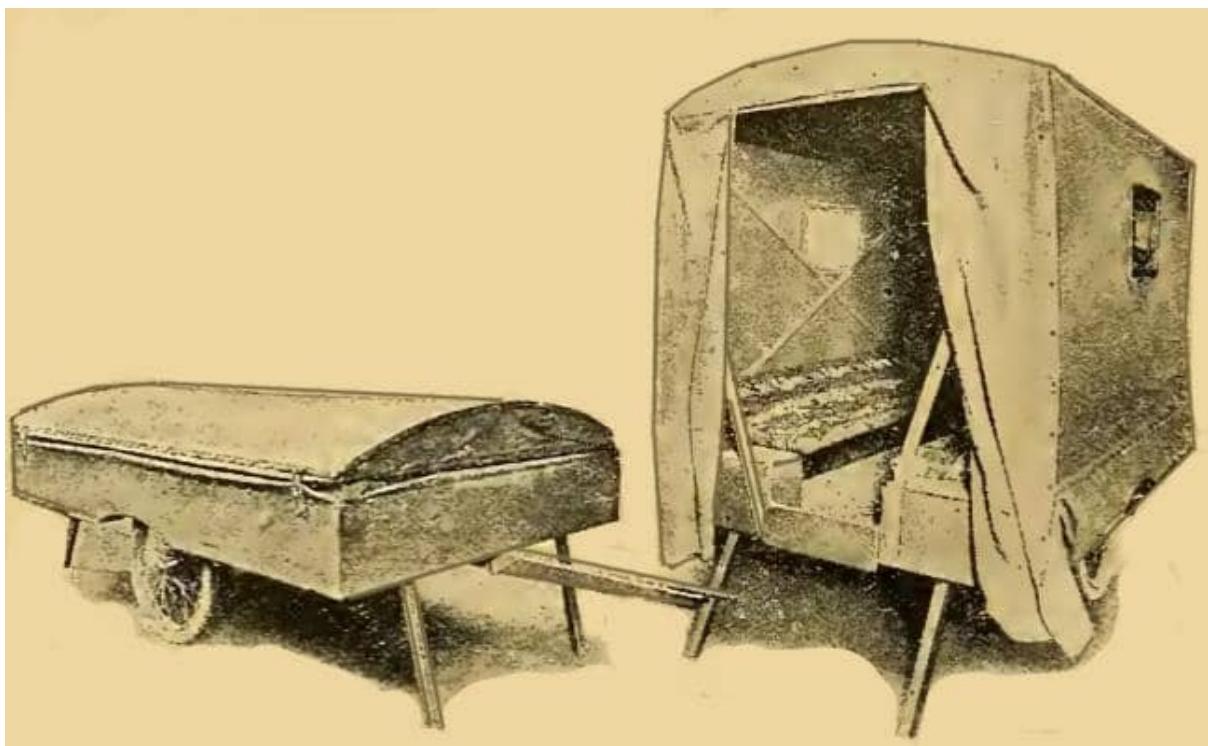
"Motor cycles have an established role on the stage; they are invariably used by heroes and heroines when a thrilling 'get away' has to be made. Here is a scene from the London success, *Out to Win*, now appearing at the Shaftesbury Theatre."



"The difficulty of accommodating a family of six in a sidecar has been overcome by our correspondent, H Woolard, by means of a special Acme outfit, adapted from the taxi sidecar made by the Coventry Acme Co."



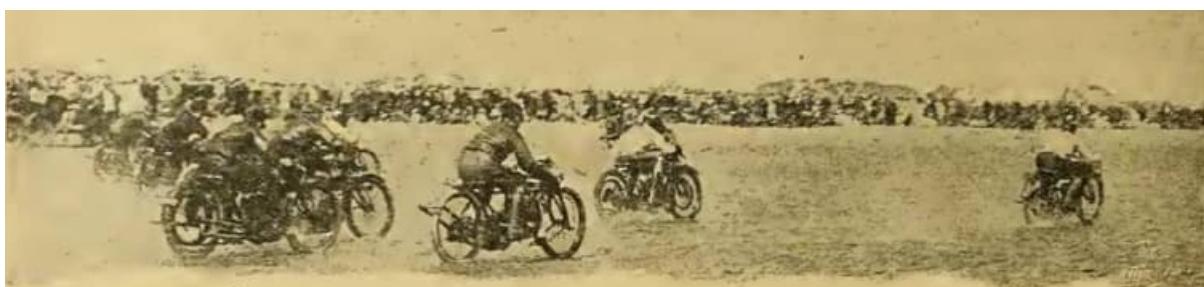
"Just what a large number of our lady readers require: Miss Bradley, daughter of *The Motor Cycle* Continental correspondent, in the smart little cycle car which, engined with a 7-9hp Harley-Davidson engine, has been found capable of 60mph."



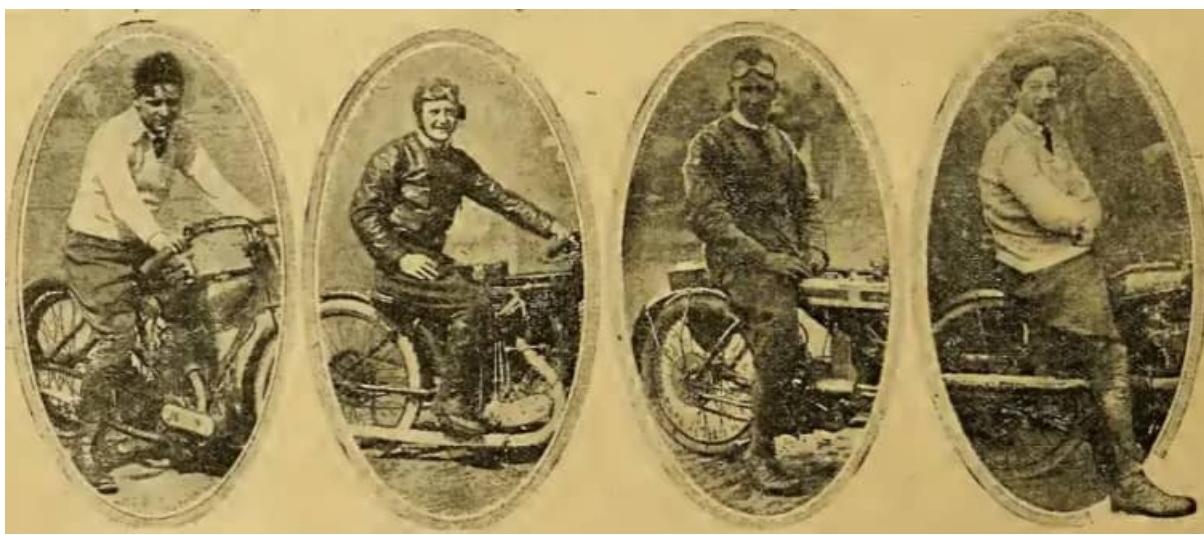
"In these days of expensive hotels, a motor cycle camping caravan, which can be fitted to a motor cycle and sidecar, cannot fail to interest those who enjoy the pleasures of the open road. The motor cycle type of Eccles trailer depicted weighs but 2cwt, and is constructed of weatherproof Cape cart hood material, and costs £67 10s. It can be comfortably drawn by a 3½hp sidecar."



An open Welsh hillclimb at Catash Hill, near Newport, attracted more than 400 entries. Pictured is Harry Church (2½hp Velocette) who won several classes.



"On the sands at St Andrews. The start of the Scottish Speed Championships."



"Scottish Speed Champions for 1921. RW Wilson (2½hp Hobart), who won the featherweight championship. AL Downie (2¾hp AJS), winner of the lightweight speed championship. JR Alexander (3½hp Douglas), winner of the mediumweight championship. RJ Braid (7-9hhp Indian), winner of the heavyweight class."

"RECENTLY SEVERAL MOTOR CYCLISTS have been summoned at Leicester for having 'a silencer that was inefficient'. As one of these riders Was the owner of a Villiers-engined machine, the

makers of this engine took up the case in the interests of the many riders using their engines. Several other firms supported them, and on the machine being tried on the road for the edification of the court, the Chairman remarked that it was a stupid case, and dismissed it without further comment."

"WHEN THE MEMBERSHIP OF AN institution like the Auto' Cycle Union drops 40% in twelve months—and this at a time when the number of motor cyclists has increased tremendously—the question naturally arises whether there is not something wrong with the policy of the organisation. The Auto Cycle Union is the governing body, of the motor cycle movement, yet, as its membership roll shows, it represents but 10% of motor cyclists in this country—insufficient to justify the position as dictator in so many vital matters. That a governing body is desirable—in fact, is necessary—will not be denied by all who have at heart the interests of the sporting side of the movement. This duty the Auto Cycle Union fulfils in a manner which has set a standard to the world, and, to do this, even a membership of 30,000 is sufficient. It is, perhaps, this side of the ACU's good work which is responsible for the comparatively low membership. The competition work of the Union, by its very success, overshadows its efforts in other directions. The great majority of motor cyclists, while appreciating the value of competitions, do not feel disposed to pay subscriptions 'to improve the breed of motorcycles'. The drop of 40% in the ACU membership synchronises with the raising of the subscription. This was done at a most inopportune time, and, if any organisation is to receive the support of the majority, the subscription must be much less than the present fee."



Isodi tucks his Douglas into a right hander en route to winning the 500cc sidecar class of the Course de Cote D'Argenteuil on the outskirts of Paris.



The original caption (from a local newspaper, rather than *The Motor Cycle*) reads: "Penzance, a 2½hp Douglas. The rider is a well known club member—but who is he?"

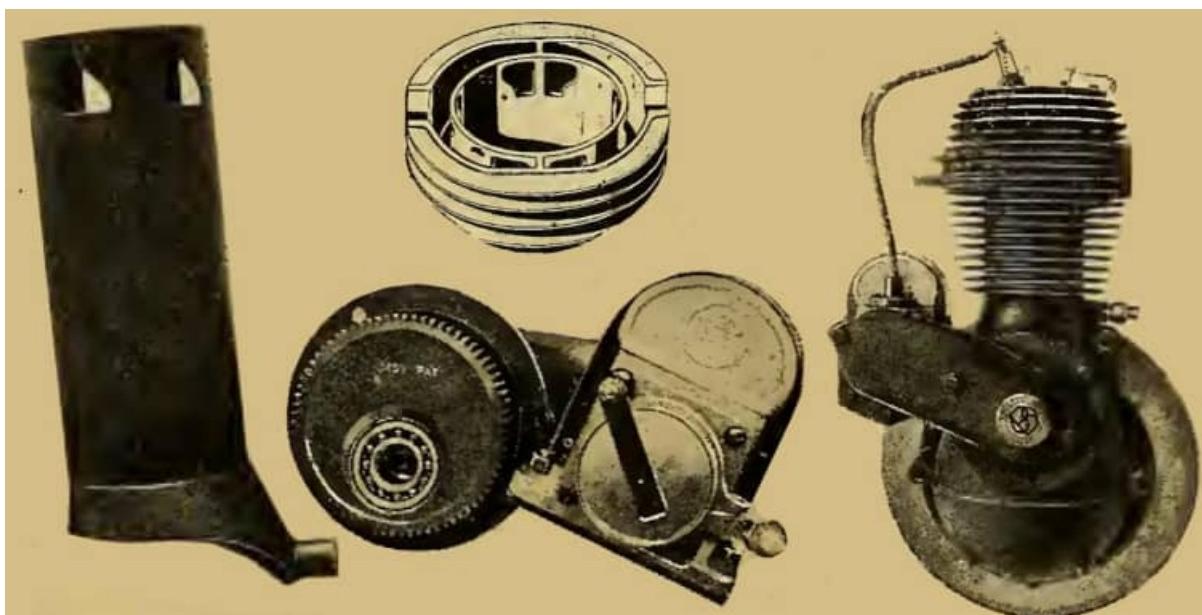
"I HAVE NEVER DONE 100MPH on a motor bicycle," Ixion admitted. "I do not think I have ever done 80mph on less than four wheels. I have no wish to touch either of these speeds. Once upon a day I burst my front tyre when I was doing a measly 65mph and only a speedometer 65 at that. I still feel minute beads of moisture bedewing my spine when I recall the occurrence. But when I read of Le Vack doing 106mph, I feel all warm inside to think of the sublime confidence he must repose in his tyre maker. Myself, I am a bit of a fatalist about tyres. In ordinary work I have grown to regard their freedom from puncture as something of a lottery. If I had to circle Brooklands on an eight-valved 1,000cc, I should probably fit solid tyres and Houdaille absorbers, being a coward to my marrows. The firms whose tyres are selected deserve much credit."

"ACCORDING TO THE LATEST statistics, there were some 37,761 motor cycles in France in 1914, and at the end of the war (1918) this number fell to 8,394, rising to 28,538 in 1919, and to 50,785 in 1920—the highest number yet recorded."

THE 'MOTO MACHINE' PLANT in Moscow was overhauling 30 motor cycles a month. It was controlled by the Central Auto Section of the Supreme Council of the People's Economy, but before the end of the year it was transferred to the Automotive Section of the Central Office of Local Transportation, a branch of the People's Commission on Transportation.

"AMONGST CERTAIN CONSERVATIVE MOTORcyclists there is some amount of prejudice against sleeve valves, probably owing to their comparative novelty; but the fact must be borne in mind that some of the highest class automobiles in the world are fitted with sleeve valve engines...As long ago as November, 1919, we were able to give details of an experimental engine produced by Messrs Barr & Stroud, of Glasgow. The first production engines have now been

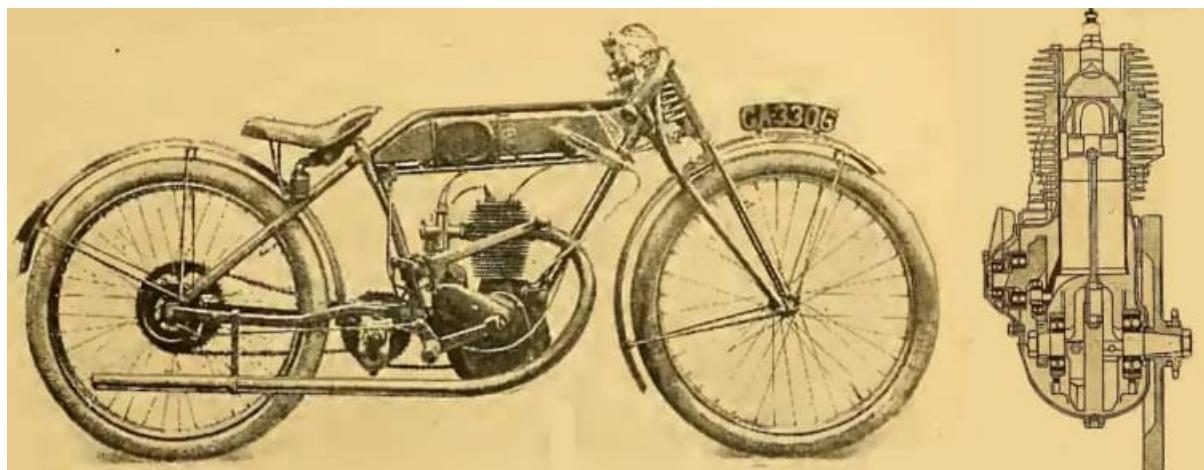
completed, and have undergone prolonged road and bench tests...the workmanship of the new B&S engine is superb...The main dimensions are 70×90.5mm (349cc), and the iron cylinder barrel is cast in one piece with the top half of the crank case. Within the barrel lies a semi-steel sleeve about 2.4mm in thickness, the base of the sleeve being stiffened up and carrying a pin, at right angles to its axis, through which the motion is conveyed...The pin carried on the base of the sleeve engages in the inner race of this ball bearing, and is a sliding fit therein. Thus when the half time wheel is rotated the sleeve is raised or lowered, and at the same time rotated through a considerable number of degrees, the self-aligning ball race adapting itself to the necessary positions. It will be seen that any point on the sleeve follows an elliptical path.



"The single sleeve valve of the B&S engine, to which a reciprocating and oscillating motion is imparted by means of a pin engaging with a Skefko ball race set eccentrically in the half-time pinion. Section of the cylinder, showing the arrangement of ports and gas passages. The absence of external valve gear is particularly noticeable, and the clean lines obtained by combining the cylinder in the top half of the crank case are also apparent."

A stroke of only 35.6mm is given to the sleeve, and the necessary balance weight is incorporated with the half time gear wheel. Five ports of a form calculated to provide the greatest possible area are cut in the top of the sleeve, two acting as exhaust ports, two as inlet, and one as both inlet and exhaust, since the rotary motion of the sleeve causes it to register with an inlet port on one stroke, and an exhaust port on the other. Six corresponding ports are formed in the cylinder—three inlet and three exhaust...By removing the oil base and four nuts, the whole piston, connecting rod, and crank assembly may be removed for examination without detaching the engine from the frame, while by removing three screws the magneto and distribution gears may be detached complete, and the sleeve lowered through the base...On the bench the engine has given most satisfactory results, and the standard article produces over 6hp at 3,000rpm. This figure is by no means the limit, as the power curve continues to rise steadily to well over 4,000rpm, and special engines with high compression and light reciprocating parts have given a maximum power of approximately double that already stated...we were offered a trial run on a light machine fitted with the standard engine and an nil-chain drive Sturmey-Archer two-speed gear...we may safely assert that the new B&S is one of the fastest standard 350cc engines which we have had the opportunity of riding...our mount

was capable of a mile a minute under favourable circumstances. The engine was consistently smooth and silent in operation at all road speeds."



"A light sporting machine in which a new B&S engine has been undergoing road tests. (Right) Sectional elevation of the engine. Note the sleeve operating gear, which runs on ball bearings throughout."

"SEVERAL THOUSAND SPECTATORS WITNESSED the Saltburn speed trials promoted by the Middlesbrough & DMCC, under the auspices of the Yorkshire Centre ACU, which were held in ideal weather on a beach course two miles in circumference. A feature of the event was that three Yorkshire championships had to be decided, and quite a number of TT riders were entered... FW Dixon, the Middlesbrough expert, on a 7-9hp Harley-Davidson, captured the 1,000cc cup, and also carried off the trophy presented by Mr John Gyers, president of the Middlesbrough MC, for the fastest time of the-day, Dixon's record in the flying kilo 1,000cc event being 89.48mph. The crowd was naturally delighted at the success of the local man, who scored the chief honours in every race he entered."



"A lady competitor—Miss Gibbon (3½hp NUT) crossing the tape in the recent Yorkshire Centre

ACU Speed Trials on Saltburn sands."



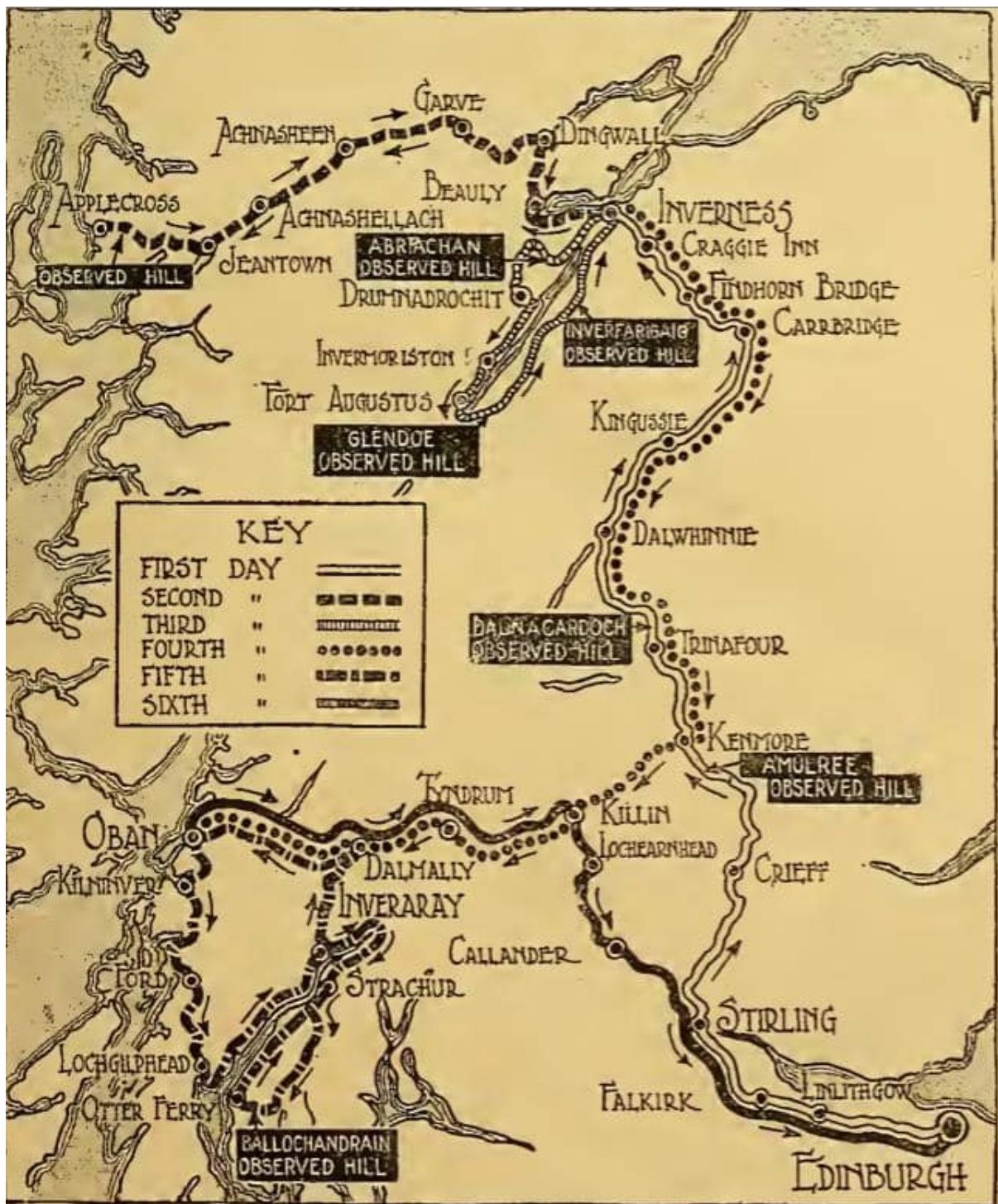
A RECORD ENTRY AND A RECORD DROUGHT are the top spots of the 1921 'Scottish'...There are plenty of interesting entries...Four Hawker baby two-strokes, with sump lubrication and flywheel magnets are entered. HG Hawker could not get away to drive the sidecar, but T Sopwith is handling one of the solo machines: the sidecar has a simple three-tube chassis, of which the main member was once a Sopwith Dolphin [fighter] undercarriage axle. 'MT Calderon' is an anagram in pseudonyms, this rider's doctor having forbidden him to compete; nevertheless, he covered the 325 miles between his home and Edinburgh in one day. Watson-Bourne is still suffering from the torn ear which resulted from his scrap home to Ramsey after the TT; but Brough has pressed one of his Swiss customers, Rudolph Banner, of Zurich, into the service, and he will be number one, never having ridden in a competition. The BSA people have three teams entered (two solo and one passenger), whilst Rovers divide their nine men into one solo team and two passenger trios. The rules demand touring head lamps, many riders have hastily purchased lamps of the hen's egg variety...Several machines are fitted with the Dawson patent nail catcher...The New Imperial outfit has a luggage carrier extending forward of the sidecar, which is generally mistaken for a life-saving apparatus...The Raleigh riders are by way of being "gadget merchants," and Fenn runs Harold Karslake close for the championship in this department. Fenn has a pneumatic saddle cover, a haversack holder on his rear forks, a carbide tin container enamelled in Raleigh colours, and drawers under his foot plates containing spare chains embedded in molten grease,



"A long pedal provides delicate clutch control on the Zenith (RB Clark's), a simple ratchet

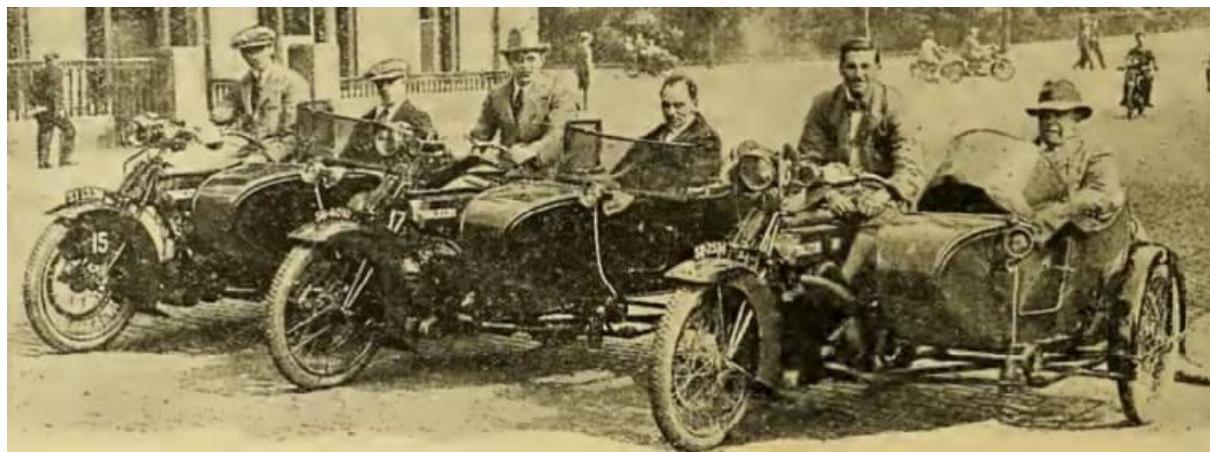
holding the clutch out when required. Carbide carrier enamelled to match the tank, and an extra tool bag on the leg shield of AG Fenn's Raleigh. A steel drawer is fitted under the footboards of the Raleigh entry; each drawer contains a spare chain packed in grease. Extra half-gallon petrol tank operated by air pressure on Westwood Wills's Powell."

not to speak of a vermillion knob on his gear lever. Karslake is quite depressed, for against this formidable list of extras he can only muster on his Brough a complete set of chain shields, a special route card-holder, and handle-bar clips for the grease gun. RB Clark's countershaft Zenith has a ratchet for holding the clutch out, and its chain is enclosed in an oiltight aluminium case...There will probably be rather a slaughter of the innocents during the first day or two. Several motor cyclists, new to a Scottish Six Days, have no conception of what is before them...Meanwhile the heat is terrific...today's breeze feels as if it came straight from the Sahara, and our Scottish hosts find the weather a noble ally in their annual work of discovering how much liquid refreshment English motor cyclists can—should we say 'swallow' or stand'? But, whatever weather awaits us, with a sporting course to follow, and a sporting club in command, we are assured a jolly week, and everybody is glad to see the British factories supporting this event as it has always deserved to be supported. Until this year the club has always lost money on the trial, and has continued to spend its funds for the benefit of the sport. This year a record entry should imply a small profit...



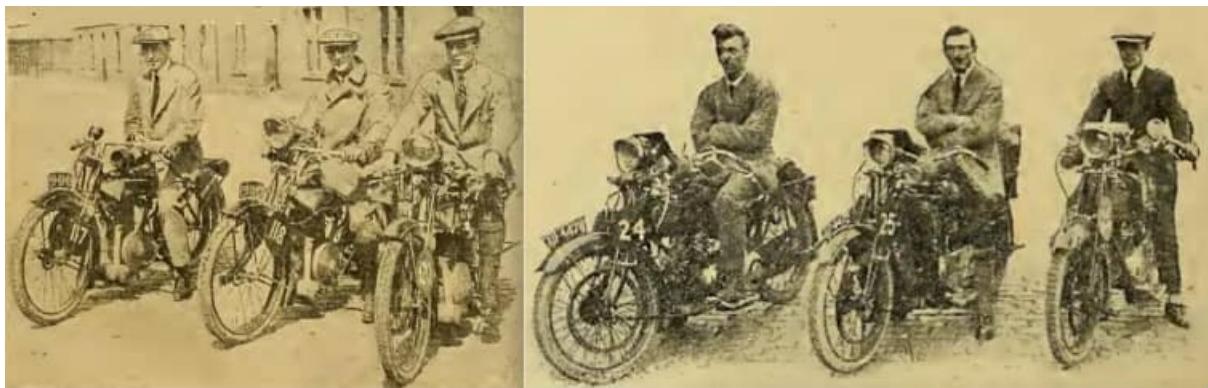
Monday (Edinburgh, Stirling, Crieff, Amulree, Kenmore, Dalwhinnie, Kingussie) test hills, Amulree and Trinafour, 183 miles: The first forty miles on Monday were extremely tedious, as they lay through a grimy district with many tramlines and much heavy traffic on nearing Stirling. Sections of the road reminded one of the devastated areas, for, although it is a main route, it is ploughed into colossal pot-holes and high ridges. Anybody attempting to tackle it at ordinary touring speeds would infallibly be thrown... Several patches were pot-holed 6in deep, and ridged 8in high... moorland roads came as a positive relief... On Amulree everybody had heaps of power. The majority of the entrants literally toyed with the climb, merely changing down to bottom gear for the S-bend, and changing up again above it. The 2½hp Hawker sidecar made a

star ascent, and was loudly cheered...Banner, the Swiss substitute for Watson-Bourne, regarded the event as a TT and not infrequently used the Continental rule of the road. Near the foot of Amulree he dry-skidded in racing round a corner, and crashed. His ascent of Amulree is perhaps the finest on record, for his forks and frame were bent; his bottom gear was 5.2; he steered one-handed, for the other wrist was sprained or broken; and blood was running into his eyes from a cut on his head. Many people had bad tosses. Inverness-shire roadmen are fond of covering the road with three or four inches of dust and grit, which is ill stuff to corner on... After the competitors had gone up Amulree, a non-competitor made a very neat ascent with a girl on the carrier of his machine...The Kenmore policeman waxed so enthusiastic that he kept busy filling up the riders' tanks with petrol.



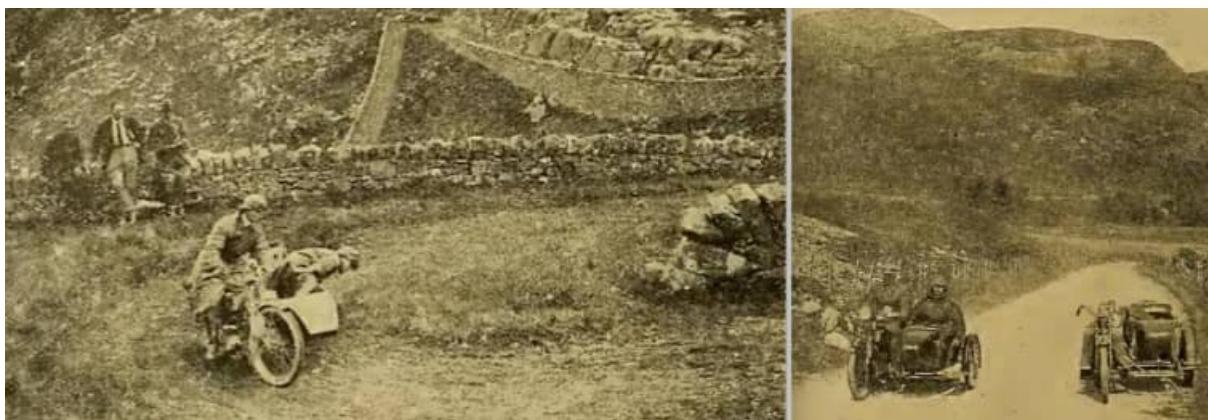
"The BSA passenger team. (From left to right) T Hunter, A Shepherd, and DS Milne, all on 6-7hp machines."

Tuesday (Inverness, Strathpeffer, Achnasheen, Jeantown, Applecross, Inverness) test hills, Tornapress and Applecross, 183 miles: After Strathpeffer the going was more or less of the moorland order, but usually permitted of high speeds, the only difficulty being to identify a rough patch in time to avert a wobble. But a harder section for timekeeping than that from Jeantown to Applecross—in either direction—can hardly be imagined. It consists of nineteen miles, viz, six miles of rough, twisty lane, a terrific five-mile climb, and an equally terrific five-mile descent. Over most of these last ten miles, it is impossible to pass a sidecar or a car, and very difficult to overtake a solo mount....the Pass of the Cattle, as the Tornapress-Applecross section is called, commences with four miles of heavy collar work. The narrow road is sometimes of short turf from edge to edge, occasionally of loose stone (of all sizes), but generally composed of three ruts, divided by really stiff clumps of moor grass a foot high with reefs jutting through here and there. To the right is a grassy hill 1,500ft high and very steep; to the left a series of gaunt, gnarled crags, with wild deer grazing beneath them; below a splendid loch, backed by a mountainous massif; above a fantastically rugged sky line. For the fifth and last mile the road goes mad, and resolves itself into three major hairpins, all acute, and connected to very rough grades of 1 in 5 or 6. There follows the difficult and dangerous descent known as Applecross, which is generally considered a much



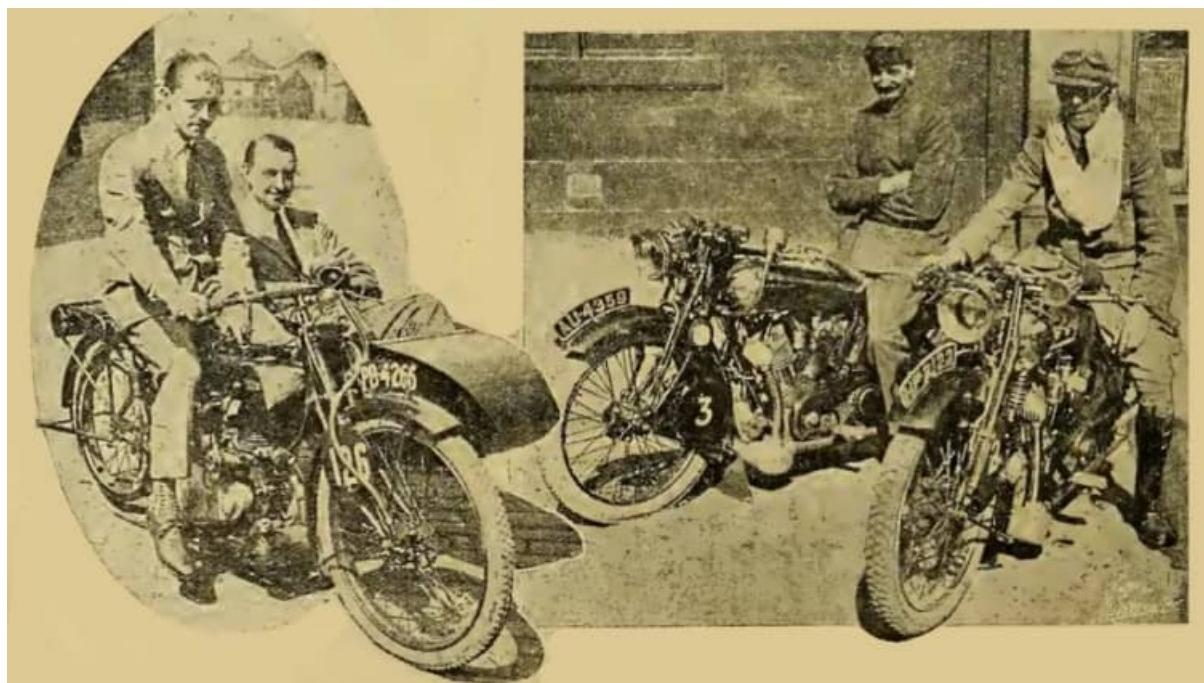
"Little two-strokes to conquer big hills. The Hawker team: T0M Sopwith, PR Dowson, and LH Wells. (Right) A Raleigh team, to demonstrate big flat twins on Scottish hairpin corners—FW Viles, AG Fenn, and K Holden."

easier climb than Tornapress, though its stiff grade commences near the foot. Both hills are 'engine heaters' of the first order, and Tornapress confronts one with three wicked corners just when the engine, is most inclined to conk. The entry put up a truly magnificent performance, almost monotonous in the high level of its excellence...The smallest engine in the trial, the Velocette, ridden by 'MT Calderon' (who is not HRH the Duke of York, as was rumoured), did splendidly, as did the next smallest. Hanwell's Cedos. The small fry, as a class, covered themselves with glory, notably Handley's OK, the two Hawkers; and Kershaw's New Imperial...The hill is so long that six car loads of observers were kept busy observing it with binoculars, and a detailed description is impossible. We can only say that after commencing to note details of each man's climb we soon exhausted our supply of superlatives. There were a very few exceptions, mostly due to inexperienced and clumsy driving. But men and machines, as a whole, displayed supreme mastery of a terrible ascent which one expert has dubbed 'Great Britain's only hill'. Knocking, over-lubrication, and a hot, oily smell—which until recently were the concomitants of a severe hill—were conspicuous by their absence. Over a hundred fine climbs were made on the longest steep hill in these islands...Browne's Douglas caught fire when restarting after the Jeantown check. It was put out by the Pyrene outfit from the petrol lorry, and Browne spent the rest of the day trying to coax partially burnt rubber belts to grip...CA McKeand was using a 3½in tyre on the back wheel of his Harley-Davidson.



"Quite one of the best performances on Tornapress was made by W Peatty. This 2¾hp Hawker sidecar outfit surmounted the difficult hill in quite a surprising manner.(Right) L Newey (6-7hp Ariel sidecar) passing *The Motor Cycle* photographer's Matchless near Kingussie."

Wednesday (Inverness, Abriachan, Drumnadrochit, Fort Augustus, Glendo, Foyers, Inverfarigaig Corkscrew, Inverness) test hills, Abriachan, Glendo, Inverfarigaig, 74 miles: The bad going began to tell its inevitable tale on the third day, and many machines showed signs of jury-rigging. Shortly after breakfast, the news of Harry Hawker's tragic end cast a gloom over everyone. He would have been there, riding one of his own solo machines, but for the claims of the Aerial Derby; and W Peatley (his brother-in-law) left at once for the South. [Aviation pioneer Harry Hawker was practising for the Aerial Derby at Hendon Aerodrome in his Nieuport Gosport when he crashed and was killed]. This day's run was limited to 74 miles, nominally to give the men a mid-week 'easy' and a chance to change their tyres comfortably in the evening if they so desired; and many of them did! But the 'rest' was purely nominal, for the 74 miles included several excursions into the 'doorstep districts', and no fewer than three test hills. Once again we travelled through some of the most gorgeous scenery in Great Britain, but rough going kept our eyes so glued to the road that we dared not glance at the views. Glendo is in two halves. The front stairs are smooth and steep; the attic stairs, after the landing, are fearfully rough, and semi-vertical. Here 22 good men and true gave up the ghost, nearly all through pure crashes due to the surface; neither loss of power nor clumsy driving was to blame. Meanwhile others had fallen by the way. Moser's Triumph and Miller's Bradbury were unrideable after collisions with banks; and Milne's (5-7hp BSA sc) gear box had wilted at the very base of Abriachan...At lunch there was great 'wind up' about the new hill—Inverfarigaig Corkscrew...The hill is purely a test of riding, and is easily described. Lay a sheet of notepaper against your coffee-pot, dear reader, at an angle of 45°. Impose upon it three capital letters S, turning the centre one the wrong way round. Let these letters be of the flat or squashed-out type—not



"W Peatley on a 2½hp Hawker sidecar, the lowest-powered outfit in the trial. (Right) Familiar figures in the big trial—H Karlake and Geo Brough on 8hp Brough-Superiors."

as square as those employed by *The Motor Cycle* comps. Imagine a road 6ft wide, a surface composed as to the centre of soft grey dust 6in deep and 4ft wide, and as to each side of hardish smooth stuff 1ft wide. The grade at the outside of the six hairpins is about 1 in 8; at the kernel of each hairpin it may be 1 in 5½ for a yard or so...Some appallingly clumsy driving was shown, and none of the 25 machines which failed appeared to do so for mechanical

reasons...Reg Brown upset his Sunbeam sidecar...The writer had to put his helm over so hard on two corners that his TT bar pinned his thigh to the tank...The whole of the six hairpins cannot be watched simultaneously, but if a prize had been awarded for the best solo ascent it might have lain between JW Wills (Powell) and G Dance (Sunbeam). Both picked the correct path to a hair: both accelerated without timidity between hairpins; neither put a foot to earth. Wills had no difficulties. Dance came up 119th, when the fifth hairpin was cut to ribbons. His machine was almost stationary in the soft stuff for a second; but, like the past-master in rough-riding that he is, he kept his feet riveted to the rests, and jockeyed the machine up...A veil must be drawn over 20% of the climbs, in which good machines were dishonoured by sheer bad driving. But several individuals registered rather special ascents. Farr (BSA), Lewis (P&M), Wilson (Hobart), and Braid (Douglas) elected to charge the hairpins at speed, and their subsequent antics earned them the soubriquet of 'wild men' from the crowd. Possibly their gear ratios compelled speed: but their climbs were more courageous than graceful, and thoroughly scattered the spectators. One unfortunate entrant was handicapped by a frame layout which simply would not steer! When he came up we all took cover behind the nearest trees...There was a regular mix-up and a wholesale baulk on Glendoe, towards the end of the climb. In the midst of it a lady passenger had a fit of hysteria...When a Douglas caught fire another competitor nosedived into an adjacent cottage, and seized the door mat wherewith to put out the flames. Later an ancient Highland dame appeared in search of the missing mat. They solemnly handed her a charred triangle of mat about as big as a sandwich. She said, 'Hech, sirs...'—and then some!...Inverness boasts a motor cycle of native manufacture. It is made by the official garage people, Macrae and Dick, and has a GRI, rotary and poppet valve engine...Wallis's Bradbury blew out the exhaust valve cap of its front cylinder, and 'carried on' with it secured by a neat bridge of spanners, lashed down with wire...



"On the fourth day of the Scottish trials. Outside the check at Dalnacardock: JW Morton (3½hp Rover), MT. Calderon (2¼hp Velocette), RT Ball (3¾hp Scott), AG Cocks (Beardmore-Precision), Norman Black (5-6hp Omega), WA Davenport (5-7hp Coventry Victor), and WF Scott (3¾hp Scott)."

Thursday (Inverness, Kingussie, Dalnacardoch, Kenmore, Dalmally, Oban) 165 miles: A perfect orgy of protests was entered against Wednesday's test hill failures...it would be clean contrary to the famous sporting atmosphere of the 'Scottish' for a competitor to grumble about official decisions: but a dispassionate onlooker may be allowed to say that, if men who capsized on hairpins are awarded clean ascents, rivals who fail through much pettier errors have an

apparent grievance...Thursday's morning's run was Monday afternoon's trip, taken in the reverse direction. We met a cold head wind, and found the corrugations of the Grampian road very trying, as they have a very short pitch, which makes the back wheel hammer...J Browne, on the 2½hp Douglas, met a car on the wrong side of a corner just before lunch, and looped the loop. He was unhurt, but his machine was in no condition to continue. George Dance arrived outside the lunch check half an hour ahead of time. He explained that he had felt cold on the Grampians and was in search of a warmer climate. A hungry official, who arrived early at the lunch hotel, is said to have moved round a table after the fashion of the Mad Hatter in Alice in Wonderland, and so to have consumed six plates of salmon...seventy-two miles of gorgeous scenery and decent going. The Pass of Brander was a revelation of beauty, and the newcomers would have liked a longer stay there. Several minor crashes resulted along the curly switchback road, mostly as the result of 'blinding' after tyre trouble. But HS Heaton, of the Cambridge team, took a more serious toss. Having previously damaged the footrest of his Brough Superior, he stopped to fell a young sapling and construct new ones. The job occupied some time, and he appears to have fallen asleep during the subsequent scorch. At any rate, he was found unconscious on the road at the end of a track which indicated a 300 yards wobble. The GN took him into Crianlarich, and his injuries are, fortunately, not important. The GN broke both its front springs, which were cleverly jury-rigged with steel plates and wire lashings...There are said to be eighty hotels in Oban; anyhow, we were all very comfortably bestowed, and no longer sleeping two in a bed, or one on a sofa, or one in a bath, as was the case at Inverness...The luncheon cider at the Breadalbane Hotel, Kenmore, was so heady that a certain teetotal rider is alleged to have covered the first two miles after lunch in 1min 59sec...Under the Edinburgh Club regulations, one may upset a sidecar on an observed hill, and yet score a 'clean ascent', provided one keeps the engine running!



"This illustration conveys an idea of the state of the roads on some sections. The rider in the foreground is A Peffers (4hp Indian)."

Friday (Oban, Kilmelfort, Inveraray, Stracur, Glendarnel, Dalmally, Oban) test hill, Ballochandrain, 180 miles: The officials forbade J Beck (8hp Royal Ruby sc) to start on Friday morning. His outfit had been damaged in a spill when cornering on Wednesday, and had gradually become quite unsafe. The sky was lowering when the survivors started at 7.30am for their 180-mile run over what the map suggested might prove a very rough trip. Actually 160 miles consisted of main roads with only one badly pot-holed stretch. It is only fair to add that main roads in the Western Highlands would be called serpentine switchbacks anywhere else. When we at last passed through the usual gate on to the usual moor, about ten miles from Ballochandrain, the solo machines had the time of their lives, for the centre of the cart track was smooth and firm, if the side ruts bothered the passenger outfits at times. Once more we had a perfect glut of marvellous scenery—glen and loch, and moor and forest, and river and

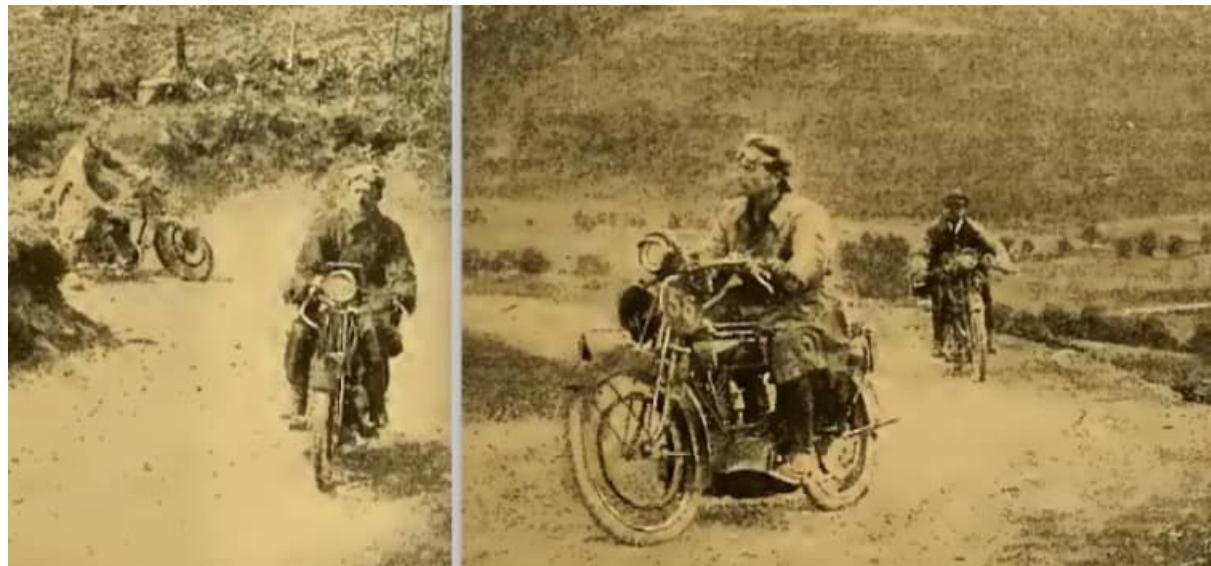
mountain, the whole enhanced by diaphanous mist wreaths, spears of sunlight, and occasional palls of thick black cloud. Sky, water and distant hills furnished every conceivable tint of blue from turquoise to the deepest indigo. We rode through the two most beautiful passes in Scotland, the delicate sylvan prettiness of Melfort contrasting sharply with the dour majesty of Brander. Shaggy little Highland cattle made a picturesque foreground to some of these pictures—or so we thought until we met a herd of 100 on a steep hill. Mac Gillivray collided with one of them so heavily that he was forced to retire. The roads were continuously dangerous, as they twisted perpetually, and whatever lay beyond the next corner was generally hidden behind a steep little hump in the road or a screen of trees. For some reason the men drive much faster in the ‘Scottish’ than in the ACU Six Days—perhaps because the country is thinly populated, perhaps because they are always expecting a piece of vile going, on which progress must be slow. Whatever the reason may be, the driving has been decidedly rash on the average, and the casualty list is absurdly lengthy; many others have had the narrowest escapes, scraping skew bridges with their handle-bars, and so far forth. The day’s



“Easy going. A trio of solo riders nearing Carrbridge. The riders are (left to right) CS Hubbard (2½hp Coulson), JR Fellows (3½hp Sunbeam), and J Westwood Wills (4hp Powell).”

test hill, Ballochdrain, bore two distinct reputations till we met it. The officials said it was ‘easy’; some of the locals (and also *The Scotsman*) described it as ‘the steepest hill in Great Britain’. The truth lies betwixt and between...The hill owed its selection to an official who went up it in a car on a dark night. As there were only five failures, it cannot be difficult; and the comparative ease with which it can be climbed is due to the brevity of the few ‘steps’. Most of the men took the hairpin at speed, especially the two Scotts driven by Langman and WF Scott. Ball’s coat caught his throttle and stopped him quite low down. Shepherd and his passenger were stopped by overheating beneath the hairpin, and had to run and push most of the way up, finally seizing up the engine. Calderon fell off for no apparent reason, and, having no clutch, could not ‘keep his engine running’—a famous phrase in the rules which had led to some very dubious attempts ranking as officially ‘clean’...On the return journey there was a good deal of injudicious scrapping, and it is a marvel that no smashes occurred in a dust column, which was over thirty miles long...Farr broke the steering head of his BSA; he jury-rigged this very cleverly, and rode pluckily on, only to be stalled with no compression near Dalmally...Richardson broke all the springs of his Lea-Francis sidecar, and it had a queer, groggy appearance from behind. The end of the matter is that the average Scottish road is now in such appalling condition that any machine which does not drop or break a part is fortunate. Tourists who intend to go North for their holidays this year should either change their minds or consult the AA as to the best routes. The road home on Friday was littered with men busy repairing tyres, and the majority of their troubles were due to cuts from stones. Road repairs over large areas of Scotland take the

simple form of barrowing assorted rubble from the nearest river bed or quarry on to the road; and they do not object to flint, or use the ordinary 2in gauge.



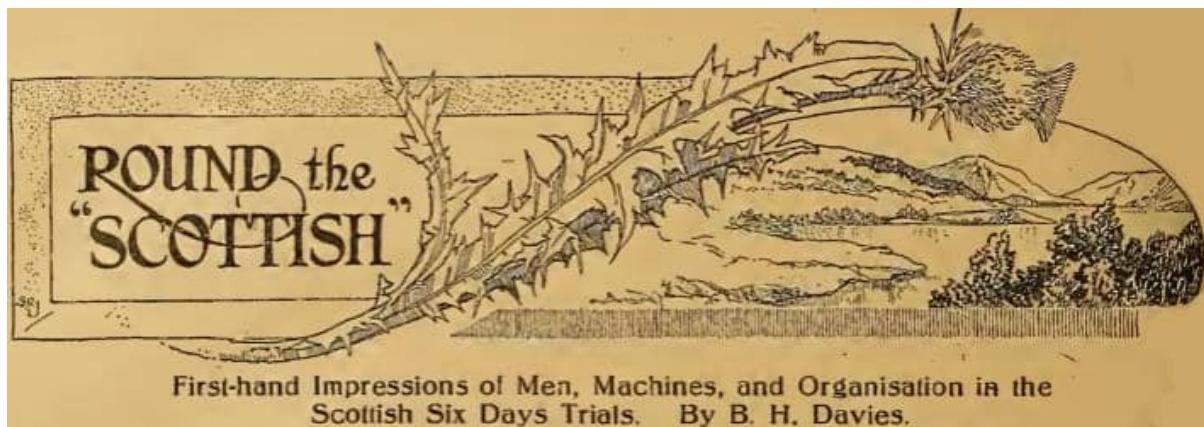
"FW Viles (5-6hp Raleigh) and JW Morton (3½hp Rover) on the lower hairpin bend of Amulree. (Right) AJ Sproston (3½hp Lea-Francis) and A Brown (3½hp Sunbeam) making light of Trinafour."

Saturday (Oban, Dalmally, Crianlaiicb, Lochearnhead, Callander, Stirling, Edinburgh), 123 miles: Oban was awakened by the unfamiliar sound of rain drumming down in torrents.

However, the weather cleared before the start, and the road through the Pass of Brander is too gritty to provoke sideslip. Presently the clouds came down upon the tops of the crags and showers began to pelt us at brief intervals. Towards Callander we ran into a regular deluge, which rapidly flooded the roads, but after lunch the sun shone out again, and the water proved invaluable in helping us to locate potholes...Nobody had much trouble on the concluding lap. Just as Sproston was riding in at Edinburgh, a car knocked him down, and ran over his ankle; otherwise, apart from the rain, the last stage was a comfortable 'blind' or most men. AF Downie was an exception, however; his contact breaker spring broke, and a helpful stranger broke the spare spring, and dropped two of the small screws in the grass. Thanks chiefly to the magnificent weather, the 1921 Scottish may rank as the easiest on record, though the roads were perhaps rougher than ever. The Edinburgh Club and its genial secretary deserve unstinted credit for their splendid organisation. There has not been the tiniest hitch in the arrangements from start to finish, and the medals were all ready engraved for distribution by dinner time on Saturday evening, a feat without parallel in such an event...The Sunbeam and BSA teams tied for the team prize, and the judges decided to award it to the former on account of the smaller capacity of the engines...The club team prize falls to the Glasgow Western Motor Club. This award was made on a tie at the judges' discretion, the promoting club being well in the running for it. The chief glory of the trials unquestionably adorns the Sunbeam entry of six machines, all of which won golds; whilst Reg Brown's machine created a new record, being the first 500cc sidecar outfit to make clean ascents of all the observed hills. Several single entries also secured gold medals. The Powell is a debutante, and was one of the outstanding machines throughout, especially for its neat, masterful work on hills. The Cedos has not previously graced a Scottish, and had the smallest engine in the trial, except the. Velocette. It made light of its job. The two OK Unions were splendid, and Neville Hall is going to be famous some day. Two of the three Hawker babies romped home comfortably, and climbed excellently. In the 350cc class the Coulson, the two New Imperials, the Metro-Tyler, the Royal Ruby, and the Hobart all defeated

many much more powerful solo mounts. It need not be imagined that lightweight riders had a very strenuous time. Most of them pegged along very comfortably, averaging 30mph, except along the mountainous sections. Of 112 starters 86 finished, 52 won gold medals, 21 silver, 13 bronze, 26 retired.

"ALL OF US AT THE OFFICE are very bored with the members of the staff who represented our interests in the Scottish Six Days," Ixion reported. "They have learnt a lot of new words, mostly ending in some such combination of consonants as 'nchdgt' or something to that effect. They throw them at us, and we do not know whether we are being insulted or not. Moreover, in this hot weather they retard the ardently anticipated moment at which the typical journalist's thirst-quencher (iced lemon squash) is delivered to us, by ordering 'a glass and a chaser', or 'a wee deoch an doris'. They learnt these bad habits in the Highlands, of course, and we are slowly weaning them back to civilised ways. A 'glass and a chaser' means a tot of whiskey, followed by a pint of beer in a separate receptacle, and is obviously unwholesome in a heat wave. I always thought 'deoch and doris' was Gaelic for whiskey and soda, but it apparently means 'last before door'. The worst of many a Scot is that it takes too many deochs to get him outside the doris."



BH DAVIES, AS WE KNOW BUT his readers didn't, was the alter ego of Ixion. These excerpts from his reminiscences of the Scottish could hardly have been written by anyone else: "The English trials are managed by a horde of officials with slide rules and weird instruments. The Scottish event is principally bossed by two genial amateurs, who listen to your tale of woe, look at each other, and remark blandly, 'Och, well, he's a guid lad, give him his medal!' They know that any 'bus which can do 900 miles approximately to schedule over their appalling roads cannot have many flies on it; and, provided you ride like a sportsman, don't cheat and don't bring your solicitor up with you to frame windy protests—they like you and your 'bus to have every possible credit...The high-spot of the week was the fact that the little 'uns ate up the roads and the gradients better than the 500cc machines were doing a year or two back...The contrast with the old days was simply colossal. The 500cc machines pobbled round the 1 in 5 hairpins with their throttles in slow running position on gear ratios which would have seized them solid in 1914; and the babies 'revved' eternally on low gears which would have welded piston and cylinder into an integral mass before the war...There was much clumsy hillwork, and lots of wildly injudicious 'blinding' on surfaces which were dangerous and on roads which dipped and twisted in a manner that shrieked for caution. It is just that extra 5mph which does it...Two of the leading trade teams consisted entirely of riders who failed to impress me by either their skill or their sense...In between times we had lots of fun,



"A big twin's debut: the chain-driven 7-9hp Rudge, driven by H Nelson, at the side of Loch Achanalt. (Right) A real corkscrew. WG Donaldson (5hp Rover sidecar) followed by an Ariel rider on Inverfarigaig hill, which tested both engines and riders."

especially at night when, over the national drink, competitors described the arduous of their day, or 'reminisced' about previous experiences in all parts of the world. We chaffed each other. Calderon had a cigarette tin fixed to the middle of his top tube; it held fifty at the start each day, and about three at the night check, so the week cannot have been one long scorch for the Velocette. The modern 'baby' is capable of the most astounding speeds. Harry Macrae and I refreshed Calderon after he had been stopped with a broken chain. We pushed him off, topped the next rise, beheld half a county, but no Calderon! I never saw a landscape vacated so rapidly. About Friday three of us fell to bragging that we looked like completing a Scottish without a spill. That afternoon, on a lonely moor track, Hugh Gibson overhauled Christie, whose forks had bent in a crash, and rendered his steering 'serpentine'. Gibson made the mistake of steering a course which was a tangent to one of Christie's arcs—both men flew. I myself was pottering gently through the lunch check on Saturday on the extreme right of the road when young Downie took a sudden dislike to me, and tried to turn his Raleigh round under my front wheel. We both flew. Sproston lasted longest. He was in the very act of handing his card to the finish checker at Edinburgh when a taxi resented the natty appearance of Spross and his Lea- Francis. They both flew...Saturday morning brought us a baby two-stroke size in cloudbursts near Callander, and the dips of the road were flooded. In one of these ponds I met a motor char-a-banc. When I emerged I resembled a survivor from the Lusitania...If you should hear that an innocent Highland gillie met a violent death at the hands of one of the boys, the verdict will be justifiable homicide. The boy had just stuck on Glendoe, and the gillie asked, 'Wull she no tak' yon bit brae?'...I had almost forgotten my own mount. Sunbeams are officially credited with six entries and six 'golds'. It ought to be eight 'golds'. I myself rode a brand new standard sports Sunbeam round the course, as did another knight of the pen. Both of us enjoyed a picnic. When AL Downie bowled me over, he broke my inlet valve spring; and, oddly enough, the corresponding spring broke on the other press Sunbeam. Apart from that I did not have a mite of trouble, and the general conduct of the machine was such that Great Britain would have held no more astounded man than myself if any mishap had occurred. The steering at speed is rock-steady, and at ordinary speed on rough surfaces I managed to hold it up quite successfully, though I had enjoyed no rough-riding practice for many months."

"THOUGH BEST KNOWN AS a pioneer airman, the late Mr Harry Hawker, who was killed while flying at Hendon last week, was a prominent figure, not only in automobile but in motor cycle circles, and during the last twelve months gave his name to the interesting and successful Hawker two-stroke lightweight made by the company bearing his name, the Hawker Engineering Co, of Kingston. Neither Mr Hawker nor his partner Mr TOM Sopwith can be described as other than active motor cyclists. As soon as their little machine was ready for the market, both partners themselves entered various reliability trials. In the ACU One Day Trial for stock machines, the two Hawkers driven by Mr Harry Hawker and Mr T Sopwith made quite excellent performances; and, had they not run short of lubricating oil at the end of the event, there is no doubt they would have emerged therefrom with flying colours. It is sad to think that Hawker's name will be missing from the movement into which he had so recently entered, but his memory will long survive as a daring aviator, whose luck in adversity was little short of proverbial, and it seems indeed hard that, after so many hairbreadth escapes, misfortune should have overtaken him at last."



"The late HC Hawker with one of the two-stroke motor cycles bearing his name."

"HOW MANY OF OUR READERS grip the tank with their thighs, or knees, or both?" Ixion asked. "I know lots of keen amateurs who consider that good riding is impossible without such a grip, either in speed work on a good surface or in rough-riding on a one-day trial. Well, here's a test of the matter. The next time you witness a one-day trial, go carefully over the 'buses at the finish, and you will find that a lot of the very best riders never use any leg grip at all. The reason is almost invariably the same—they began life as factory testers, and got into trouble if their breeches rubbed the gold lining off the tank."

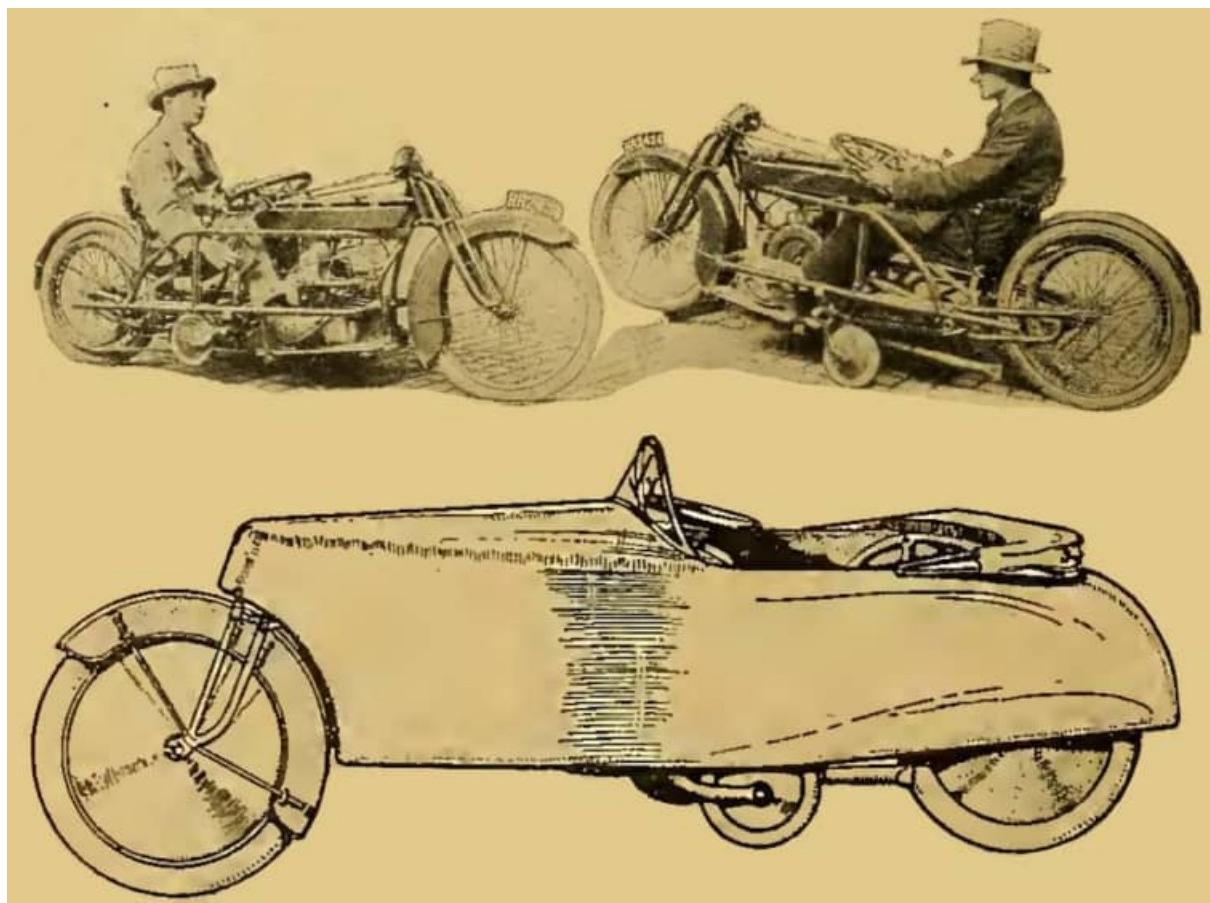
"AS A SPORT MOTOR CYCLE competition riding enjoys a world-wide popularity. It is only natural, however, that 'different countries, different methods' should be the rule regarding the best,

most enjoyable, and most useful form which these events should take. At the same time, it is gratifying to note that more and more are the other countries of the world following the lead set by Britain. Not only is this so in the case of reliability trials; it also applies to racing. For example, America is now considering the formation of a central club on the lines of The British Motor Cycle Racing Club. It is a project that we feel sure will meet with success. When all things are considered, the leading position that Britain holds in the world of competitive motor cycledom has been gained simply by reliability trials on sensible lines. If we except the TT, road racing is unknown in England; yet abroad, in South Africa, Australia, and New Zealand, and on the Continent, in France, Italy, Sweden, Germany, Austria, and even Czechoslovakia, this branch of the pastime is probably the more popular of the two. Of course, in the majority of these countries the authorities do not look unfavourably on using the roads for speed events."



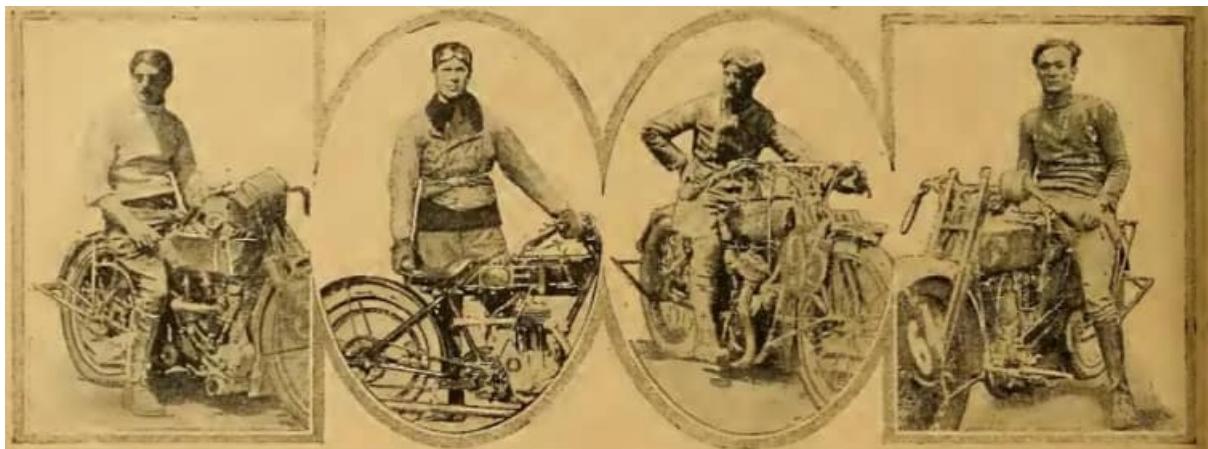
From the left: "A successful competitor in a race arranged by officers of the Japanese army in Nahayana; the rider's mount is a 4hp chain-driven Triumph. A competitor at speed in a hill climb near Prague, Czechoslovakia. Swedish owned motor cycles lined up at the central square in Orebro during the four-day 1,000-mile trial organised by the Svenska Motorcykel Klubben. The joys of camping—two American X's almost bogged in rough going near Salt Lake City, Utah, USA."

"FOR YEARS THE MOTOR CYCLE has been accused of lack of weather protection for the driver; therefore, any attempt to give the rider something approaching 'limousine comfort' must be regarded seriously. Messrs Brown & Roper's vehicle is rather difficult to classify...A 4hp Douglas engine and frame form the basis, but the wheelbase has been lengthened and a form of chassis attached to take the two trailer wheels. These wheels may be raised or lowered instantaneously by means of a single hand lever. An important point about these wheels is that the axle to which they are attached is pivoted centrally, thus allowing automatic adjustment on corners and uneven surfaces. The body is readily removable to allow access to the engine or transmission. A very low seating position also tends to give freedom from skidding. Steering is by wheel connected by rods in tension to the front fork. Beyond the fact that the gear box is set further back than usual, the transmission is the same as on the original Douglas machine. Side shields and foot-boards are so designed that an adequate current of air reaches both cylinders. The designers and makers are Messrs Brown and Roper, engineers, 43, The Canal, Salisbury, Wilts."



"In this illustration the driver's hand is resting on the lever which raises and lowers the side wheels. (Right) Showing how the trailer wheels adjust themselves to road inequalities. (Below) An impression of what the monocoche...will look like when completed with bodywork, hood, and screen."

"THE MOST SUCCESSFUL AND IMPORTANT motor cycle race ever held in Italy took place on the Circuit di Cremona, a road race of 160 miles, run off on a flat, triangular course of approximately, 40 miles. One hundred entries, representing the products of five countries—England, France, Italy, Switzerland, and America—and Swiss riders besides the Italians, gave an international character to the event. English machines were most numerous, there being Douglas, Wooler, Verus, Calthorpe, and Excelsior machines in the 350cc; Sunbeam, Ariel, Norton, and Douglas in the 500cc; and Hazlewood and Douglas in the 750cc classes; whilst the 1,000cc class was a duel between the two strong teams of Harley-Davidsons and Indians, representing America." Harleys took top three spots in the 1,000cc race—a rider named Winkler won at 68.64mph including a 75mph lap which was the highest speed to date in an Italian road race. First three bikes home in the 750cc class were an Indian, a Motosacoche and a Frero. But the 500cc class was a British benefit: a Sunbeam was followed over the line by a Norton and an ABC. Fourth place went to a Bianchi ridden by Italian ace Maffeis who gave the home crowd something to cheer about by setting a lap record at 63.6mph. First three home in the 350cc class were a Motosacoche, a Douglas and a Verus.



"Franconi (2½hp Motosacoche), winner of the 350cc class. Vailati (3½hp Sunbeam), who won the 500cc class. Rava (4hp Indian), victor in the 750cc class. Winkler (7-9hp Harley-Davidson), winner of the 1,000cc class."

"ON THE MONDAY MORNING, after the Circuit di Cremona, Nazzaro, riding a 7-9hp Indian, attempted the flying kilometre mean speed record. His best time was 23.3sec, equalling a speed of 95mph. Although not a world's record, this is certainly a marvellous performance for a road attempt."

"FIFTY-TWO MOTOR CYCLISTS COMPETED in the Grand Prix race, organised by the Union Motorcyclists de France...The circuit de la Sarthe, over which the race was contested, measures 10¾ miles, the 500cc and the 350cc riders being called upon to cover eighteen circuits (193½ miles), and the 250cc lightweight riders fifteen laps (161¼ miles). Le Mans attracted thousands of visitors for the motor cycle race and the car race on Monday. Although the course had been excellently treated, it was, perhaps, natural that the 100mph cars had cut up the surface badly in practice, patches of sharp flints being encountered at intervals. Except for half-a-dozen or so difficult turnings, the course is extremely fast, with its long straight stretches, higher gears being possible than on the Manx TT circuit. A striking success was scored by British riders and machines, representatives of the home country occupying the first five places in the chief class for 500cc machines, France claiming honours in the 350cc event, and a French rider mounted on a machine assembled from British components winning the 250cc category."



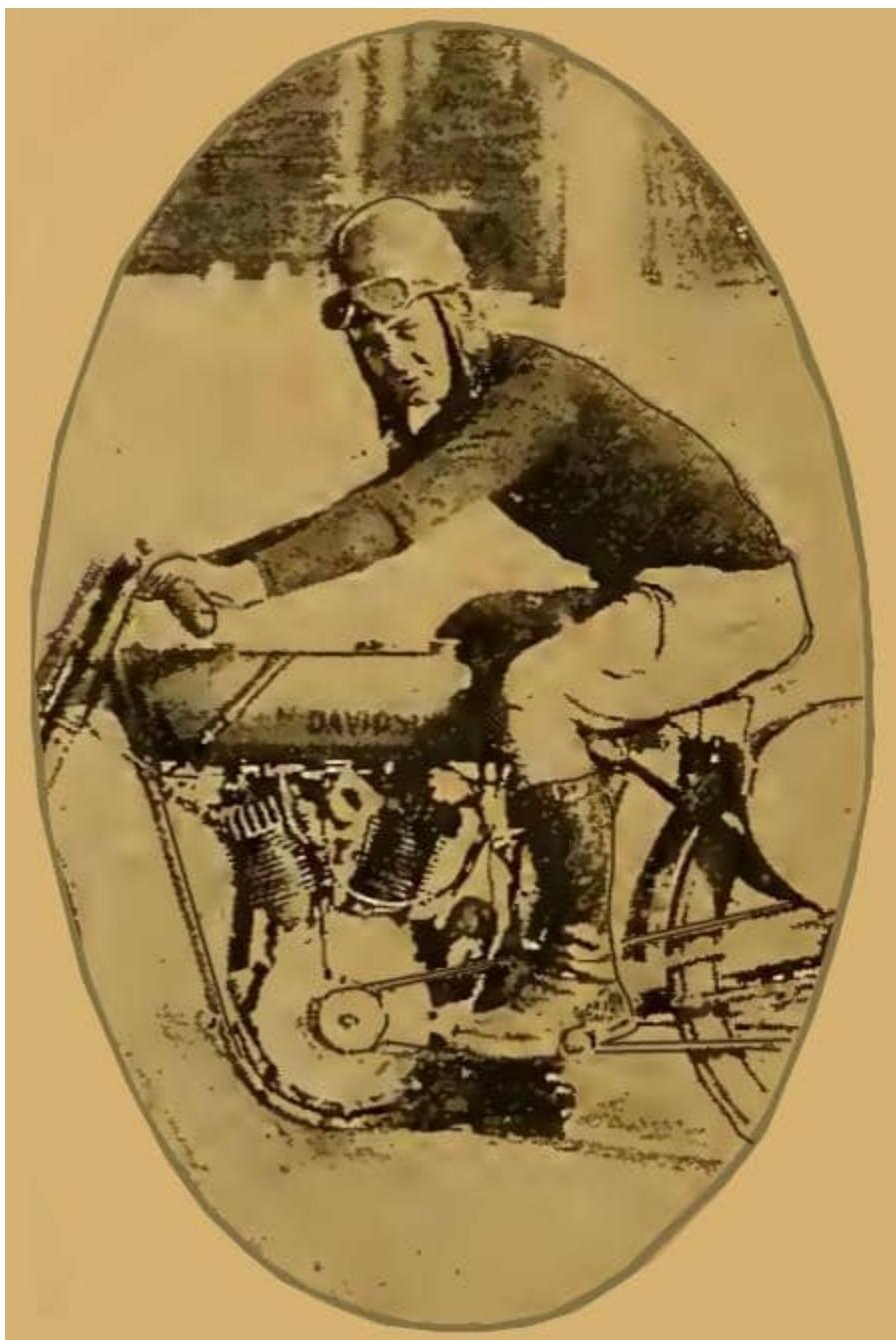
"Partez! It would be difficult to imagine a more animated scene than the simultaneous start of 28 machines in the 500cc class. (Right) Bennett, on the right, and de la Hay (first and second, on 3½hp Sunbeams) exchange mutual congratulations after the race."

Alec Bennet and Tommy de la Hay took the top two spots for Sunbeam ahead of T Sgonina (Triumph) and a brace of Duggies ridden by FW Dixon and JL Emerson. An Alcyon won the 350cc class but Douglasses came second and third. And the winning 250cc Yvel was built of British components including a JAP engine. (and until encountering a tyre shredding flint on lap 12, A Milner led the 250cc class on his Levis), "It certainly is a wonderful old engine, this Sunbeam,"

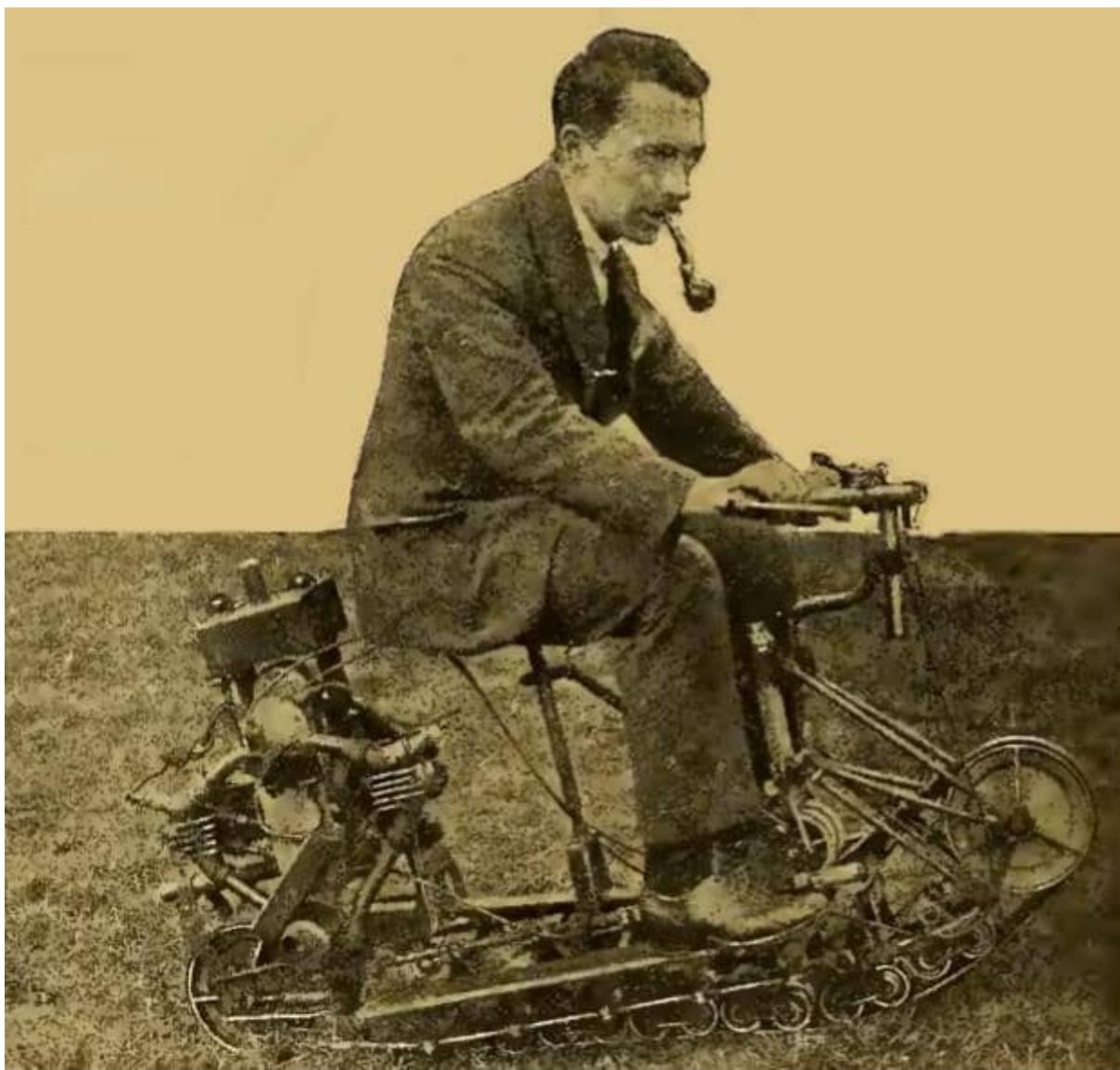
remarked Bennett, as he dismounted and wiped the oil and dust out of his eyes. It was easier to get the winner of the Grand Prix race to talk of his machine than of himself. He quickly remarked, however, "I am not an American, as some of you seem to think. I was born in Canada, raced an Indian on the Canadian tracks, came over with the Canadian Army in 1915, and, well, I married an English girl, and that is sufficient reason for staying, even if I did not like the country so well as I do. Yes. it is harder than the TT, for the speed is so consistent ; but I do not think that it requires so much skill. Undoubtedly, it is harder on the engine, for there is no 'let up'."



"An impression of competitors at Le Tertre corner by *The Motor Cycle* artist on the course."



"At Brooklands on Friday last CF Temple, riding a 7-9hp Harley-Davidson, beat the following records: 50 miles, 33min 6.8sec= 90.59mph; 100 miles, 1hr 8min 22.1sec=87.52mph; one hour, 87 miles 922 yards=87.76mph."

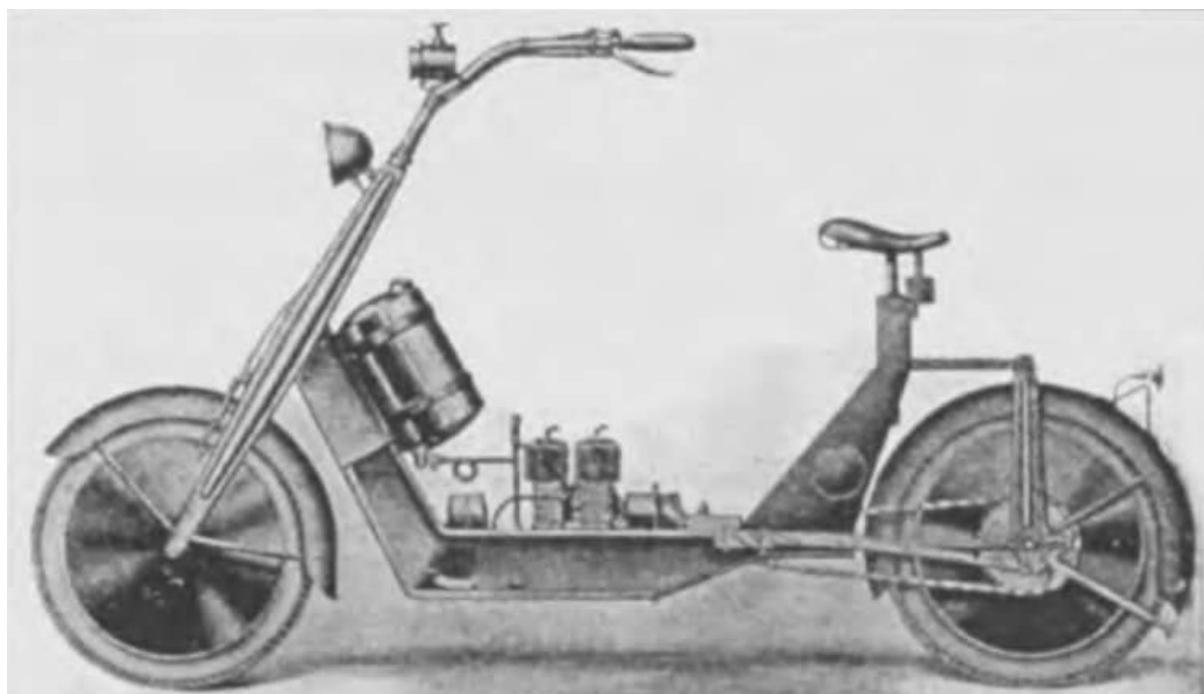


"A caterpillar 'scooter' engined with a 2½hp Douglas unit and capable of running at 20mph over meadowland or broken country. It has been evolved by the Dept of Tank Design and Experiment for the purpose of testing out the possibilities of employing flexible tracks, steerable without braking and skidding."



Monet & Guyon

entered the scooter market with the Velauto which was no mere toy. "The elegance and stability of a car," the company proclaimed, "The speed of a motor cycle and the simplicity of a bicycle." It won the Scooter-Club de France Grand Prix; *Moto-Revue* tested one and recorded 180mpg.

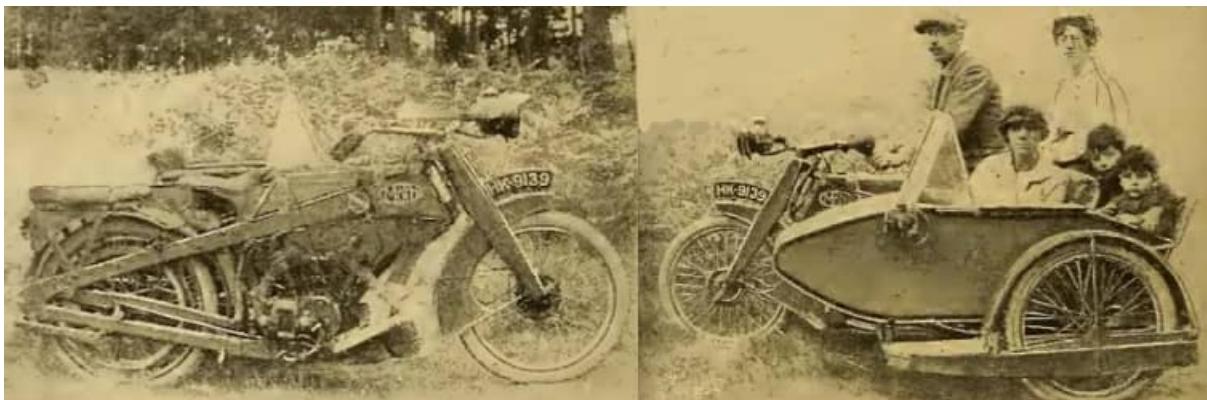


The Autocyclette 'Pam' was launched in New York as a "miniature car on two wheels". Its in-line

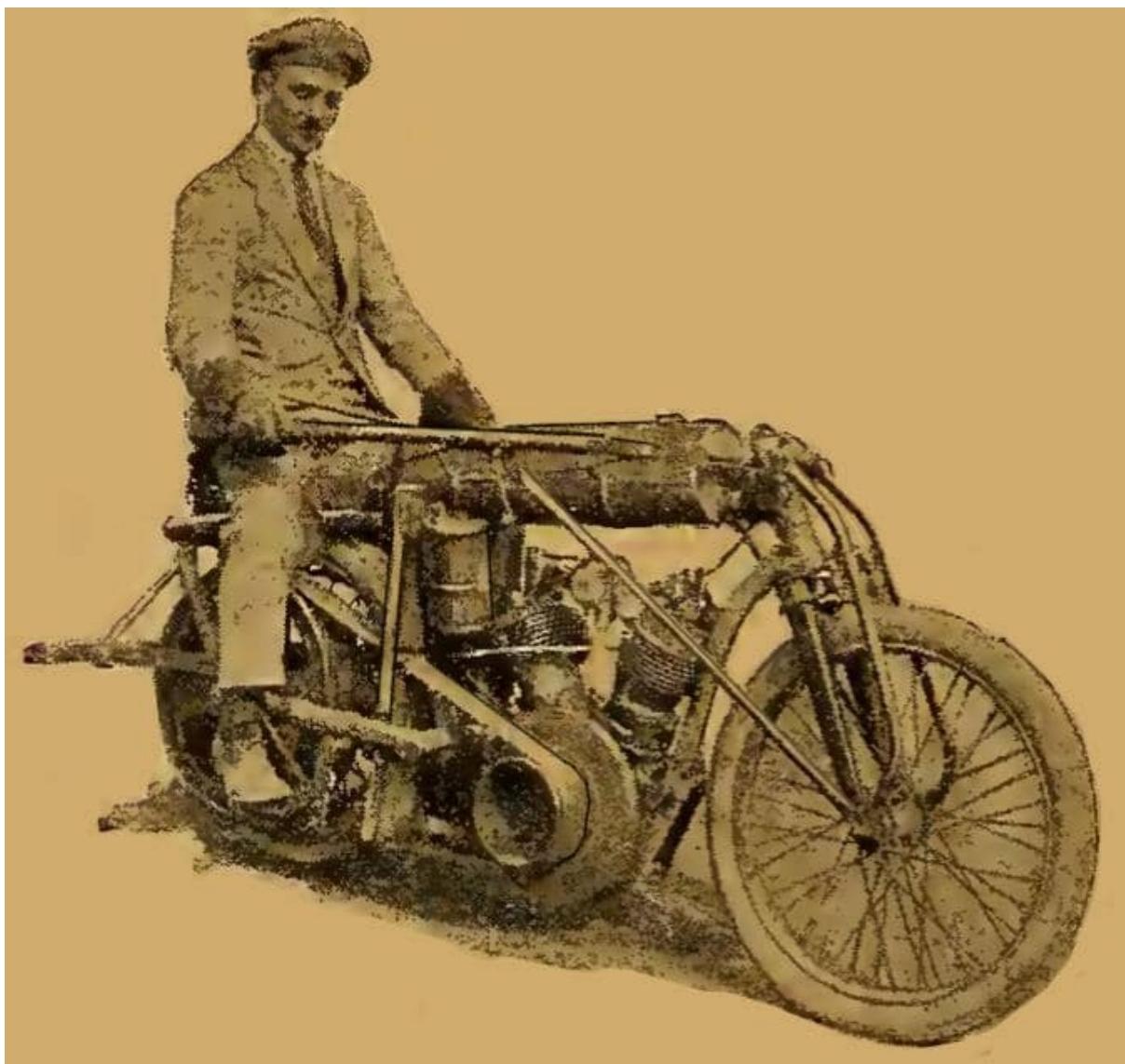
vertical twin 205cc 2½hp two-stroke lump was mounted on the floor of a pressed-steel frame with leaf-sprung suspension. Two-speed, sliding-gear transmission was controlled by a foot lever. Primary drive was via bevel gears. Unlike most of its contemporaries the Autocyclette boasted a front brake. It weighed in at 175lb and rolled on 18in wheels. A MkII Pam was fitted with a 241cc 3hp four-stroke single and 20x2in wheels.



The Austro-Scooter was built in Austria by Steirische Fahrzeugwerke. The 82cc/1hp two-stroke engine was developed for use as a clip-on bicycle engine. Ignition was by a low-tension mag with, for reasons of which I wot not, a contact breaker inside the head.



"Mr HW Beaumont, of Ipswich, has ideas of his own on methods of construction. Wood is largely used both in the cycle frame and sidecar chassis of this remarkable home-built outfit...The wood used is ash, with steel plates and bands to strengthen the joints, while the sidecar body is three ply over a cedar frame. Sprung fore and aft, and with the sidecar wheel also sprung, the outfit, we are told, is roadworthy and comfortable. It has an 8hp Rex engine, fitted with a Philipson pulley and a two-speed hub gear. Not the least interesting feature is its equipment of two carburetters—a small one for traffic driving with an ordinary B&B for general running."

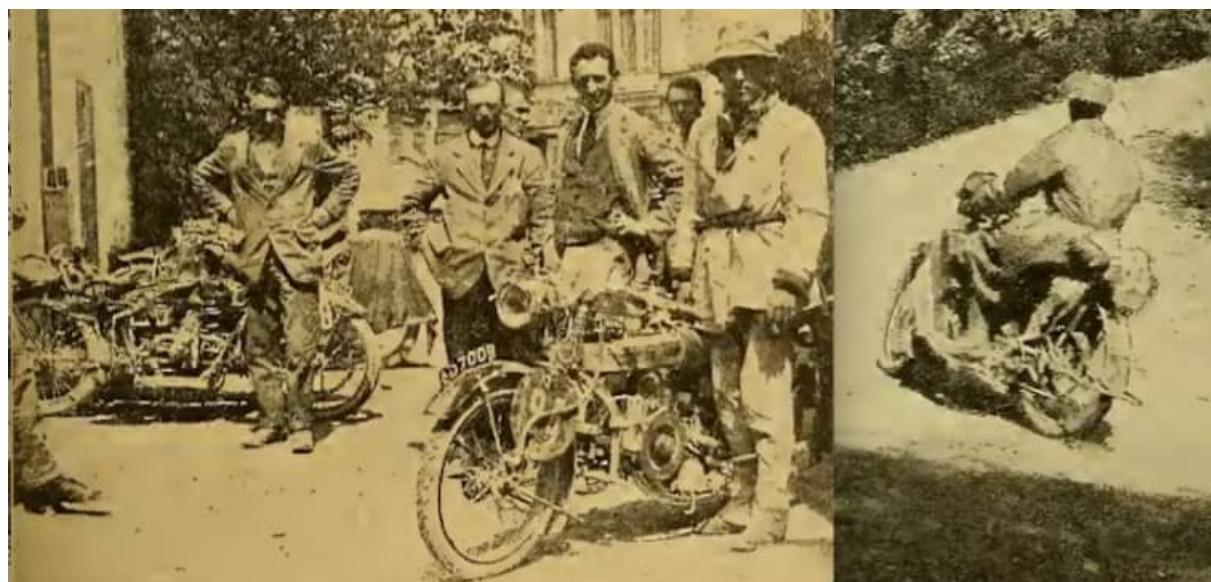


"HR Davles—the winner of the Senior TT race—mounted on a 16hp Anzani-engined pacing machine, which, however, it is extremely doubtful would equal the speeds of the little 2¾hp AJS—least on the Isle of Man course."

The INTERNATIONAL **Six Days Trials in** *Switzerland.*

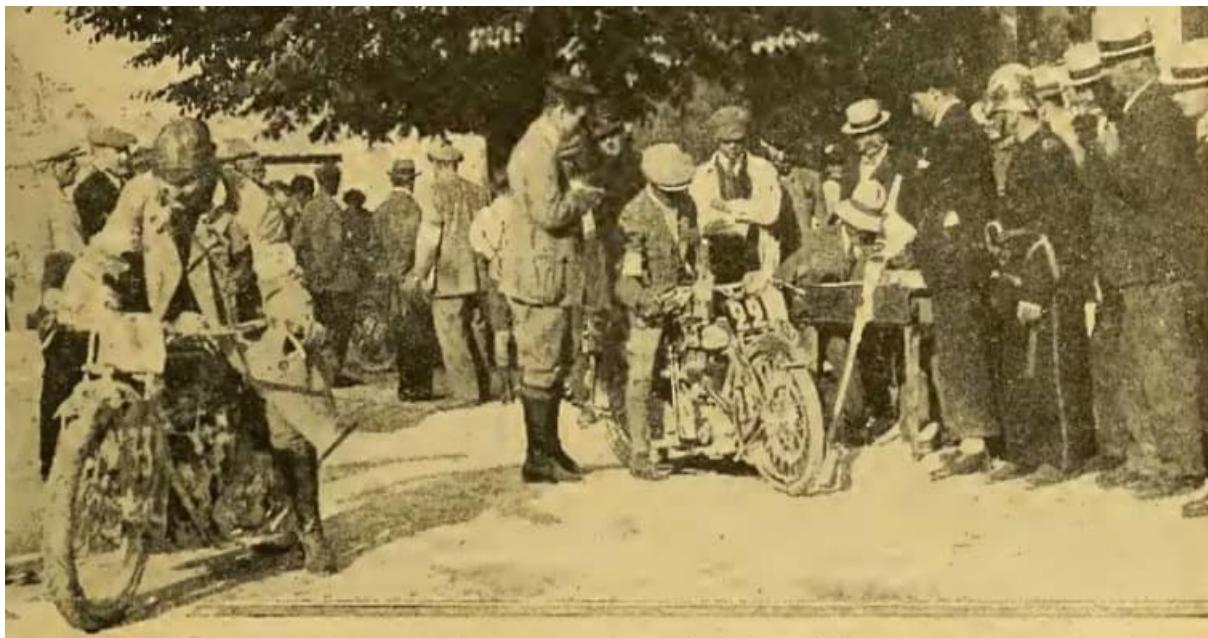
"ONLY TWO TEAMS COMPETED FOR the International Trophy in the Six Days Trial (promoted by the Swiss Motor Cycle Union for the FICM), viz Great Britain and Switzerland. There were 51 entrants, and all faced the starter at Geneva...Gorgeous scenery and long, tiring gradients were the chief characteristics of the trial. Imagine Applecross piled on Porlock, and Sutton Bank placed on the top. Cover the whole with glorious shady woods, add a blue sky and a blazing sun,

and some idea may be gathered of the lesser climbs of the trial...The entry consisted of riders from England, France, and Switzerland, and machines made in England, France, Switzerland, and America...the Swiss team, consisted of Morand (Condor), Rothenbach (Motosacoche), and Crex (Motosacoche); the English team consisted of Eric Williams (AJS), JA Newman (Douglas), and Hugh Gibson (Raleigh). Besides these the following Englishmen took part: H Dawson (P&M), EH Lees (Sunbeam), H Langman (Scott), CP Wood (Scott), and FP Dickson (Brough Superior), making eight British entries in all. Of the 51 entrants 24 rode British mounts...The organisation at the weighing in was excellent and most thorough, and took place in the Batiment Electoral, one of the finest buildings in the beautiful town of Geneva. Every conceivable part of the



"Well-known riders at Schaffhausen on the third day's run. Reading from left: H Langman (Scott), Hugh Gibson (Raleigh), Eric Williams (AJS), and JA Newman (Douglas). (Right) CP Wood taking one of the hairpins on the Weisenstein on the first day."

machines and each bundle of spare parts carried was either sealed or stamped, while particular attention was paid to silencers, every cut-out being sealed in its closed position...Every official spoke fluent English, all seemed bent on doing their utmost help the foreign visitors...the French and Italian teams failed to materialise...there were several incidents during the day. Fouquier (Viratelle sc) upset his outfit on the Col des Enfers (the Pass of Hell), rightly named so far as he was concerned as his brakes failed and he fell, breaking several ribs. Young Neher (Motosacoche) lost marks through punctures, brake, and plug troubles, while two of the British team must have lost many marks. The unfortunate Newman had a fall after the Weisenstein, and then a series of punctures which exhausted his supply of spare tubes. Exhausted by his fall, the heat, and his efforts, he lost an hour. It will be appreciated that the trial was no picnic, and most of the English riders said they have to drive on full throttle most of the time. Gibson, though his failure on the worst hill of the day lost him no marks, feared he had been penalised owing to five punctures he suffered...Lunch was served in a shady garden, and afterwards petrol was brought in drums and doled out first in enamelled water jugs, and finally out of glass water decanters. Oil was a great difficulty in this trial, as the local lubricant



"A scene at Chaux-de-Fonds. Emile Gafner (Indian) getting away, and EH Lees (Sunbeam) at the timekeeper's table. Observe the fireman with his hatchet and metal helmet."

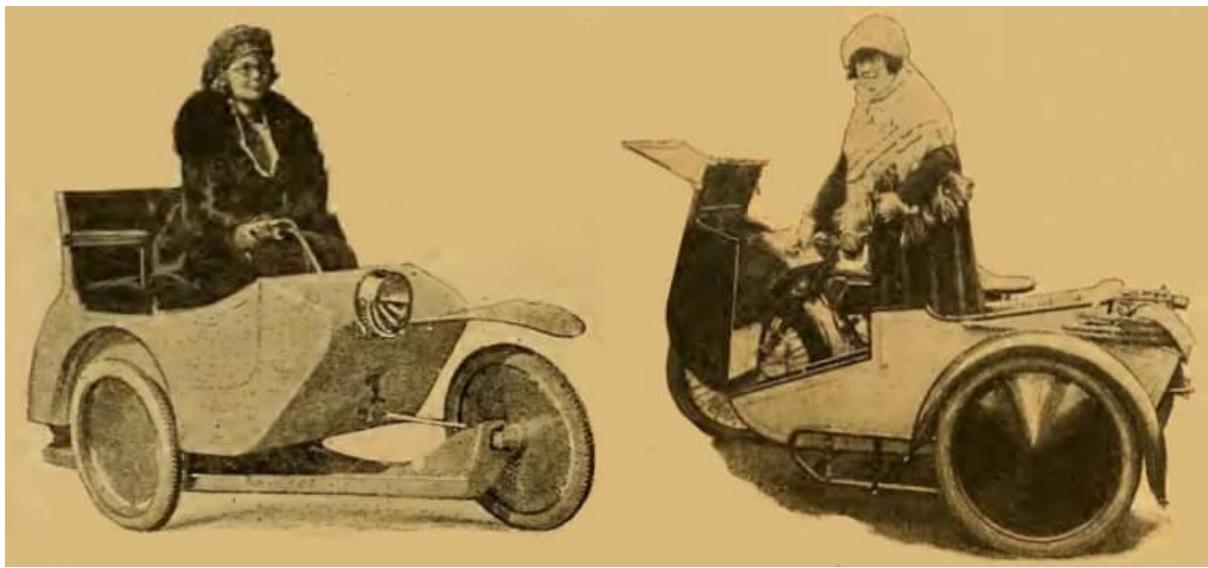
was unsuitable for British engines...It was a rich district, with neat, well-kept buildings, and at several of the controls liquid and solid refreshments were offered to the competitors. At the Hulftegg control a group of enthusiasts met Eric Williams and greeted him as a hero to be revered, his prowess in the TT having reached even these distant parts. The climb up to this point was stiff, but only troubled some of the smaller Condors...Heavy rain fell during the morning of the fourth day, making a bad prospect for the journey over the highest Swiss passes. The first important ascent over the Klausen (6,400ft) was made through heavy rain and thick clouds; it was very cold at the summit...Competitors met the Cyclist Alpine Regiment during the ascent, and had a hearty welcome at the Hospice, but were so cold that they could hardly feel their controls at the beginning of the descent...The fifth day (Lugano to Fribourgh, 202 miles) proved too long for such difficult country. Fortunately, the Airolo side of St Gothard was not observed, or half the Swiss Army would have been needed; the corners on this side were very loose. The English team arrived happy at the Bellinzona control, but had suffered 19 punctures in all...Eric Williams had four punctures, and had to drive all out, passing competitors on the descent to Hospenthal, then over the Furka Pass past the Rhone glacier—glorious sight—up the Grimsel, and on to Meiringen, which was a fearful and wonderful journey. Bouvin (8 Motosacoche sc) retired before Fribourg was reached owing to a collision and gear trouble. The last day's run was almost equally stiff, but the competitors were



"A study in sinuosity. This road, too, is on the famous St Gotthard Pass, and was traversed by the competitors on the fourth day of the trial."

welcomed everywhere. There was a speed hill-climb in the morning at Du Brueck, a long hill with dangerous corners, on which were several falls. Eric Williams (2½hp AJS) made fastest time in his class, despite a broken throttle wire; CP Wood (3½hp Scott) won the 750cc class; and FP Dickson (8hp Brough-Superior) was first amongst the 1,000cc solos. In the afternoon a well-organised speed trial took place, and amongst the class winners Eric Williams (2½hp AJS), JA Newman (3½hp Douglas), CP Wood (3½hp Scott), and FP Dickson (8hp Brough-Superior), were again prominent. At the end of the trial there were 39 finishers out of the 51 starters, and amongst those who lost no marks were Eric Williams (2½hp AJS), Robert (3½hp Motosacoche), Staub (3½hp Norton), Rothenbach (8hp Motosacoche), and Honel (GN). To summarise, the International Trials this year have been exceedingly severe, and the passes have tested engines to the utmost, since they had to be taken dead slow. For the second time the Swiss team secure the International Trophy, being 151 marks to the good. The trade team prize was secured by the Motosacoche, followed by the Douglas trio. The prize of a gold watch for the best performance by a foreign visitor was secured by Eric Williams (2½hp AJS), and the prize offered by the Swiss president was awarded to the GN."

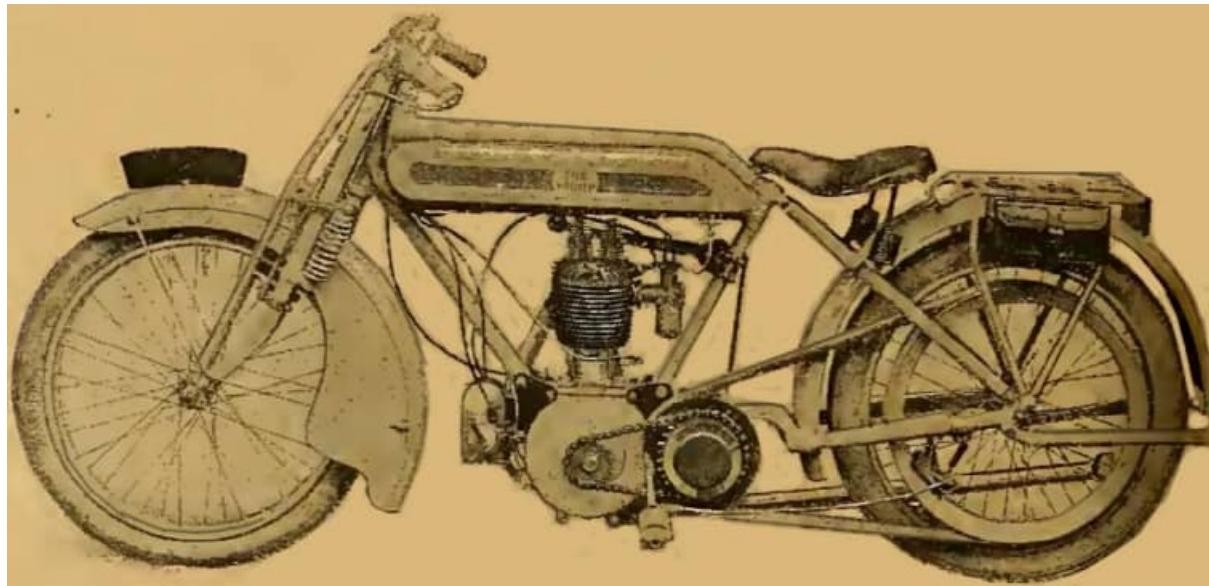
"IT IS WITH REGRET that once again we have to refer to Sunday competitions...for Years, we have been averse to the organisation of sporting events on the Sabbath; in fact, our efforts have been the means of checking over-enthusiasm of trials organisers, who, at times, are apt to forget the feelings of the general public. The Auto-Cycle Union shares our views, and has always been against anything which tended to undermine the popularity of the pastime; since some of the local ACU centres—especially those in the North—make a speciality of Sunday competitions, it would appear that the governing body has not full control over its subsidiary organisations."



"A simple type of three-wheeler of American origin. It is somewhat reminiscent of the Scott Sociable, although a very different engineering proposition." It was made by the Martin Rocking Fifth Wheel Co of Springfield, Mass., was powered by a 334cc four-stroke flat twin and steered by a lever. (Right) Illustrating why this sidecar is called the Kangaroo; the passenger, leaving the sidecar, lifts out the special suitcase carried under the dash."

"I KNOW SOME CYNICS DENY that in this planet of 1,500,000,000 inhabitants, there is even one individual who is both honest and smart," Ixion remarked. "What would you say, dear readers, if I proved to you that such an individual exists? And in Manchester, of all places? I know he is smart, because he is organising mass production of one of my old brain-waves. And I know he is also honest, because he has offered me a royalty on it. (Not less honest than I am, because I refused the said royalty, both as a journalist who likes to keep his independence, and also as one who remembers other makers' clumsier efforts in that line.) What is it? Oh, just a prop stand. Are you annoyed with me? Well, wait till you've tried it. Do you really like lugging a 3cwt 7hp twin on to its legs? Do you like searching a moorland road with flush edges for some sort of a kerb on which you can lodge a footrest whilst you light a pipe? Do you like being fetched out of your favourite hotel by a constable because you 'bus has tippled off the kerb, and a motor coach has juggernauted it? Do you like stopping halfway up PoParlockrlock because a large stone has joggled your rear stand out of its spring clip? When this new prop stand comes along—weight, about a feather and a half, cost next to nothing, and instantly fittable to anything from a two-stroke to a ninety bore twin (this is the inventor's account, bien entendu)—you will be permanently insured against any of these mishaps. The rear stand will then be restricted to its proper duties, ie, supporting the tail of the 'bus during tyre repairs; and it will, therefore, be secured by a clip which is vibration-proof. As befits a veteran I have owned all sorts of stands. I remember days when stand and carrier were one and the same, tied to a hole in the back of the saddle by a bit of copper wire; on tour you had to unstrap all your luggage before you could mend the tyre. I remember stands composed of two separate legs, insecurely clipped to each chain stay; they used to drip bolts and nuts along the road, jangling with a devil's tattoo to the forrad end of the chain stays, and then chock the wheel spokes. I remember stands with such narrow bases that the machine toppled over, if, whilst dismounted, you incautiously exhaled your cigarette smoke transversely instead of longitudinally. But I have loving memories of one two-leg stand, date about 1907. Each leg had two positions—half down, they acted as props; right down, they formed an ordinary stand. They were very heavy, rather expensive, and spike-ended, and the spike generally engaged the slack of my trousers when I sprang for the saddle.

But I tolerated their misdeeds for years because either leg could be used as a prop, and a prop stand is the greatest petty comfort which a motor cyclist can possess. After I have said all -this, I shall rejoice in my pseudonymity, supposing the latest prop stand never comes to anything, and infuriated readers haunt our offices with guns; but I think it is going to be all right. More when the times are ripe."



The Trump-JAP, which had been a competitive sportster before the Great War, went back into production powered by the 8hp JAP V-twin and, pictured, the latest 550cc 4hp JAP sidevalve single. The three-speed transmission was courtesy of Sturmey-Archer with the option of a close-ratio box without a kickstart.

"A MACHINE WHICH PASSED through our hands had a in the kit would fit these nuts, sizes. and no fixed spanner could be bought to suit them, with the result that an adjustable spanner was the only tool available for removal. We have often urged that standard nuts and fewer sizes be employed, and we would specially urge these who have their 1922 models in hand to study this point."

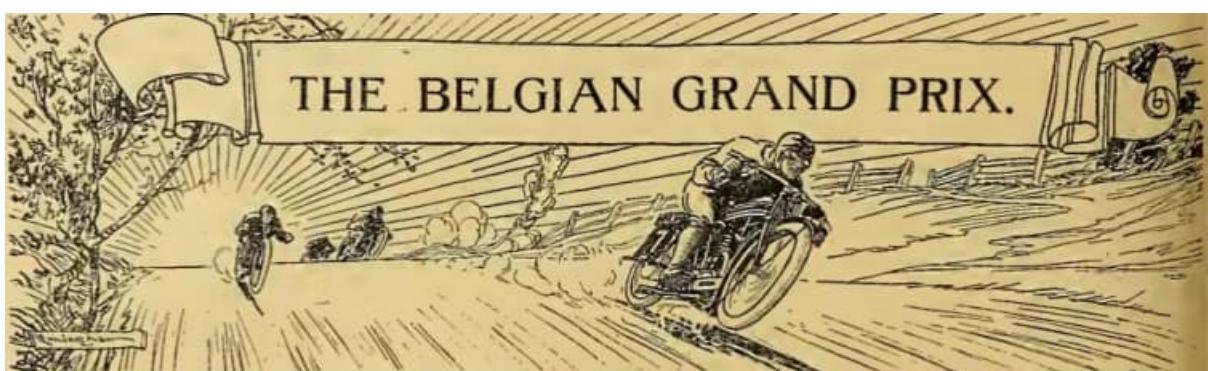


This pic arrived (from my esteemed chum Fanfan) labelled '1922 Meknes'. I was about to drop it into the Illustrative Melange when, on a whim, I googled 'Meknes' and, courtesy of Wikipedia, learned that we're in Morocco, 10 years after it was occupied by France when "Meknes became a center of agriculture and viniculture, led mainly by French colonists who appropriated large amounts of land nearby". It seems the locals didn't entirely approve so these worthies, only four years after the end of the Great War, were still on active service.

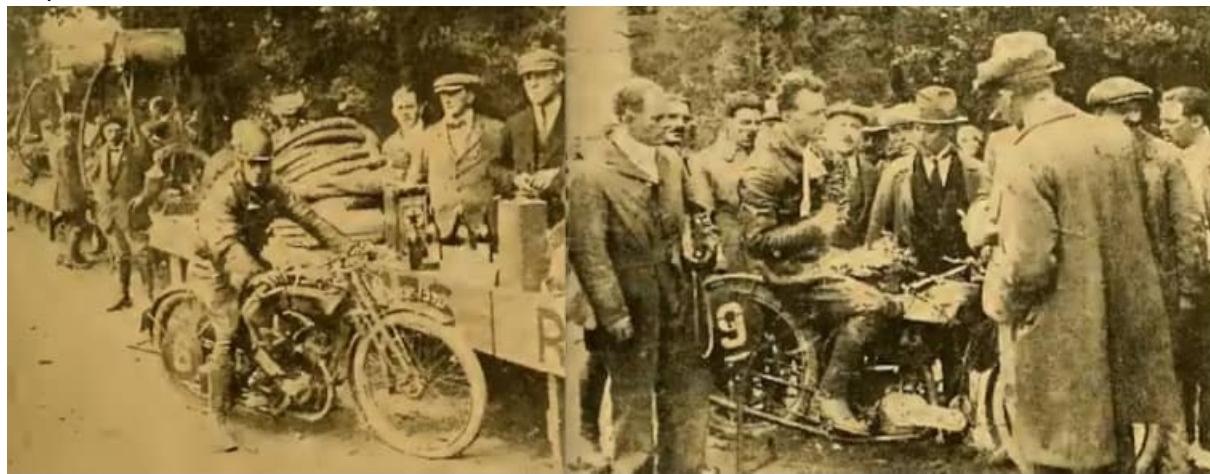
"THE P&M SIDECARS USED by the RAF in London are equipped with a wheel lock, consisting of what appears to be a few links of the Aquitania's anchor chains, enclosed in leather, and a padlock."

"MR CHAS F COALES, CHIEF officer of the Newport Pagnell Fire Brigade, wishes to thank the driver of the Matchless sidecar, who, on Sunday, the 7th inst, carried one of his men to the scene of a fire after he had missed the departure of the fire-engine."

"AT MOST SPEED EVENTS where certain well-known riders are competing, one hears remarks which go to show that Sgonina is regarded as an Italian, Le Vack and de la Hay as Frenchmen, and Bennett as an American. They are all British, including the last-mentioned, who is Canadian."



"A NORTON WON THE BELGIAN Grand Prix, thus completing a triple success for British machines in international road races. It is interesting that, while the TT was won on an AJS, and the French Grand Prix on a Sunbeam, the Belgian event was carried off by a Norton, which goes to show that British superiority does not lie in one super-tuned machine, but is fairly representative of the whole industry. Never has a motor cycle race been run over a prettier or more charming course than the 1921 Grand Prix of the Federation Motocycliste Beige. The circuit is situated in the most delightful part of the Ardennes, about eight miles south of Spa, and is approached through the woods by one of the longest and straightest hills we have ever seen...The grandstand (or tribunes) was unlike any other, as it was built on the side of a hill by a landscape gardener, and words fail to describe its beauty. The hill flank was studded with terraces covered with cinders and with rough stone steps



leading to them. Rustic fences, benches, and chairs were duly arranged, and pots of fresh growing flowers and plants were placed here and there; the whole effect was delightful. The British competitors were well pleased with the course. Sgonina said he liked it better than the Grand Prix, and that it was more like that in the Isle of Man ; but, whereas the machines were not fast enough on the Le Mans circuit, they had speed enough and to spare for this one. Le Vack also liked the course, but thought the road rather loose for high speeds...Breslau, the Norton rider, was first away, but Hassall (Norton) showed wonderful acceleration and shot ahead, while Edmond (Triumph) and Strange (James), who started on the first line, Avere momentarily lost in the crowd of twenty starters. The junior machines left immediately afterwards...The second lap saw Edmond still the leader, and going better than ever, with Hassall second and Dixon third. The leading man was marked by the scorers by means of a red disc, which hid his number; and when this was done, there were shouts from the press stand of 'Take it down! Are you a Socialist?'...In the eighth lap Hassall was still running as magnificently as ever, Dixon was missing, Le Vack was second, with Shemans third, and Sgonina fourth. Dixon arrived at last, and started to repair a fork member, which had broken, bracing it with a piece of iron and a strap. When he pluckily started again, he was two clear laps behind. Edmond, who started well, was now among the unfortunates, and rolled in later with a loose tank and broken petrol pipe...It takes some considerable amount



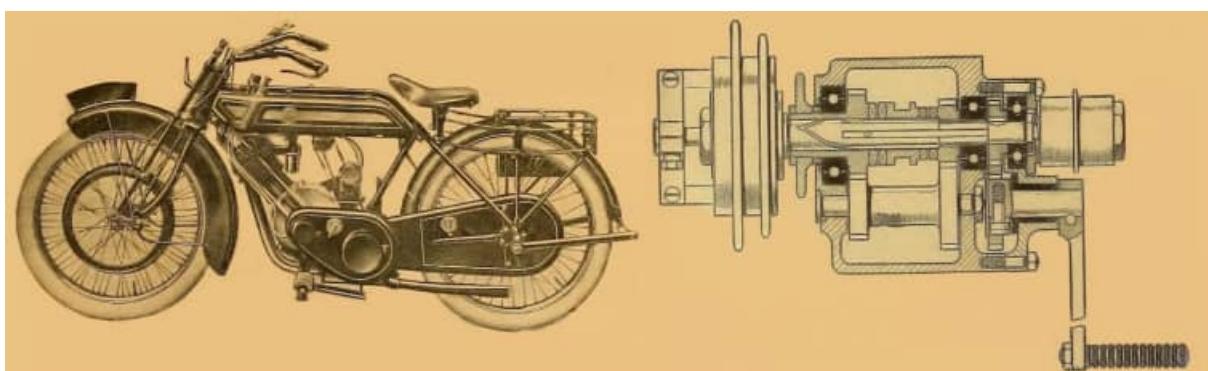
"Edmond Claessens, second at the Belgian Grand Prix in Francorchamps in 1921 on his Gnome et Rhône-built ABC."

of pluck to drive like fury with a broken and roughly repaired fork, but Dixon's blood was up, and though a lap or so behind, was racing neck and neck with Hassall...The fourteenth lap saw the retirement of Shemans, who suffered engine trouble, and the fifteenth that of Sgonina, who had had both tyre and engine defects. The Sarolea team was sadly depleted, and they had indeed hard luck. Their chief tester was hors de combat, owing to an accident previous to the race, and one rider after another had to withdraw owing to distorted valves. The race was now left to British and American machines. Hassall was still unassailable; Le Vack was still going strongly; Dixon, through pluck or recklessness (call it what you like: it served its purpose, and all honour to him!), now rode in the third place with Strange (James), who had run most consistently, fourth; and the two French-built ABCs, which had travelled well from the start, in fifth and sixth places. The fifteenth lap signalled the arrival of the first junior, Kicken (Gillet), who had ridden a splendid race; but when the second junior, Desterbecq (the other Gillet rider), arrived, he covered two laps before the marshals could stop him. In the sixteenth and seventeenth laps, the survivors were running in the following order: Hassall (3½hp Norton), Le Vack (3½hp Indian), Dixon (3½hp Indian), Strange (3½hp James), Claessens (3hp ABC), and Perrin (3hp ABC), and maintained this until the finish. In the eighteenth lap Hassall and Dixon stopped for petrol...The distance covered in this class was 188½ miles...As regards the Junior class, the three finishers were Kicken (2¾hp Gillet), Desterberq (2¾hp Gillet) and Mouret (2½hp Sun). The junior machines accomplished 16 laps (141 miles)...As' was the case with the French Grand Prix and the International Six Days Trials, this third important Continental event was witnessed by a member of *The Motor Cycle* staff. Thus, the journal has been able to give an accurate and first-hand record of every important competition held this year."



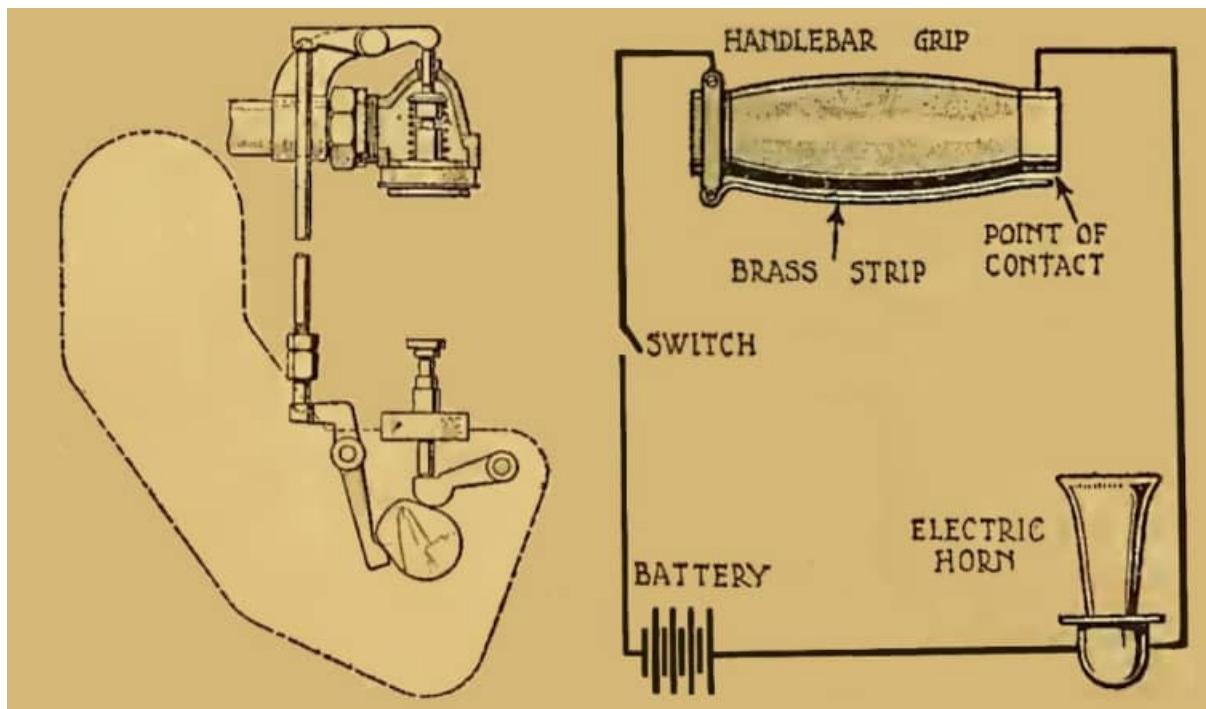
"British riders caricatured. Hassall, Le Vack, Dixon, and Strange as seen by 'Forg', of our Belgian contemporary La Motocyclette."

"FOR THE FIRST TIME on record the P&M team for the ACU Six Days Trials is this year to consist of three sidecar outfits. This innovation is rendered practicable by the introduction of a new four-speed gear, which is to make its debut in the classic event, and the four-speed models will be placed on the market very shortly...Two speeds are given by the selective clutch gear, as in the original model, and the two additional speeds are obtained by driving through the dog clutch gear box instead of directly. Each gear engages in exactly the same method as hitherto—that is, by engagement of the selective clutches, so that it would be possible, if so desired, to pick up from a standstill on any one of the four gears by the engine slowly taking up the load through the familiar expanding ring. While the lever is passing through its motion from one position to another, the dog clutches are engaged or disengaged automatically by the crosswise action—that is, this part of the gear change looks after itself as the lever passes through the neutral position. The gear lever has two movements, backwards and forwards and inwards and outwards. In passing from first gear to second, the lever is pressed straight forward; in passing from second to third it comes back, but must be pressed over to the left at the same time; similarly top gear is obtained by pushing the lever straight forward once more. The backward and forward movement operates the selective clutch gear; the right and left movement operates the dog clutches. Thus, if the gear lever were in second gear position, and it was knocked straight over to the left by a sharp tap of the hand, top gear would be engaged; but in this case it would be necessary to lift the exhaust valve, as the change would be effected simply by slamming in the dog clutch. Having become used to the change, however, all sorts of unique liberties can be taken without risk of damage. Though the action is that of a gate change no gate is included as it is unnecessary. The astute will have gathered that the engine can be started with the kick starter either through the high or low chain ratios, accordingly as the gear lever is in the forward or backward neutral position."



"Increased engine capacity (555cc) and a four-speed gear should more than ever ensure the success of the P&M as a go anywhere dual-purpose mont. (Right) Two primary chains are used in conjunction with a two-speed dog clutch gear box."

"THE TOURIST TROPHY RACES are to be held in Belgium during June, 1922. This important decision was reached by the Competitions Committee of the ACU...It will be recalled that there has been much discussion with regard to the most suitable course for the classic event. England is, unfortunately, ruled out, since a special Act of Parliament would be required to sanction the race, and it is most improbable that such an Act could be carried through. Ireland has been suggested, but the state of the country is not encouraging at the present moment. Thus, the choice is limited to the Isle of Man or a Continental country. The former place has always been selected in the past, and the Manx course has been looked upon as an inseparable part of the Tourist Trophy races. Nevertheless, there are several reasons why a change has been considered. It has been stated that modern machines are too fast for the course, but there is no unanimity on this point. In addition, the event has not received the wholehearted support of all the Island inhabitants. Therefore, it comes as no very great surprise to find that the invitation of the Federation Motocycliste Belge has been unanimously accepted by the ACU. The new course is about 50km (31 $\frac{1}{4}$ miles) in length, and was recently inspected by the Secretary of the ACU. It starts just outside Spa, where the grandstand will be erected...The organisation will remain entirely in the hands of the ACU of Great Britain, though doubtless the hearty co-operation of the officials of the FMB will be utilised. The municipal authorities at Spa and the Belgian Government are lending their assistance, and we understand that 1,000 troops to patrol the course are to be placed at the disposal of the ACU. Special facilities have already been secured, including favourable assurances as regards railway and steamship services by the GER, concessions in respect of Customs, and special fixed tariffs to be charged by the hotel keepers in the Spa neighbourhood." The Blue 'Un asked ACU secretary TW Loughborough why the ACU wanted to move the world's premier roadrace away from its Manx home: "In the first place, the course is not suitable for 500cc machines, as was clearly evidenced by the fact that this year a Junior machine won the Senior race. Secondly, it is not putting it too bluntly to say that we were somewhat bled by the Manxmen. We were not our own masters, while you know as well as I do the difficulty of transport and absence of any concessions by the IOM Steam Packet Co. Thirdly, and lastly, there is to be a Car TT this year, and this would have meant either holding the race early in May or not until September, while if the latter date had been chosen the roads would have been badly cut up by the racing cars...I would like you to say that almost all the members of the trade to whom I have spoken about the idea are distinctly in favour of it."



"Details of a conversion from automatic inlet valves to mechanically-operated overhead inlet valves are shown on the accompanying drawing. Beyond the fact that the overhead rocker is set at a slight angle across the frame, the sketch is practically self-explanatory. The existing inlet gear is only slightly modified, and the existing exhaust cam now operates both valves. This idea in its general application might well be adapted to several types of old automatic inlet valve engines in good condition.(Right) For those who must often leave their machines unattended in city streets, this suggestion of a thiefproof alarm has much to commend it. It consists a 'concealed' switch for the electric horn fitted to the handle-bar grip in such a manner that, immediately the handle is gripped, the horn is set in action. Of course, there is a main switch for putting the device out of action when the machine is in use by the owner."

"OVERHEAD VALVE ENGINES practically swept the board at last week's big race meeting of the West Wales Centre ACU."

"AS ALREADY MENTIONED IN our pages, Mr JL Norton, the veteran motor cyclist and designer of the Norton motor cycle, is embarking on a world tour in order to gain first-hand knowledge of conditions overseas; he will also give a series of lectures to motor cycle clubs."



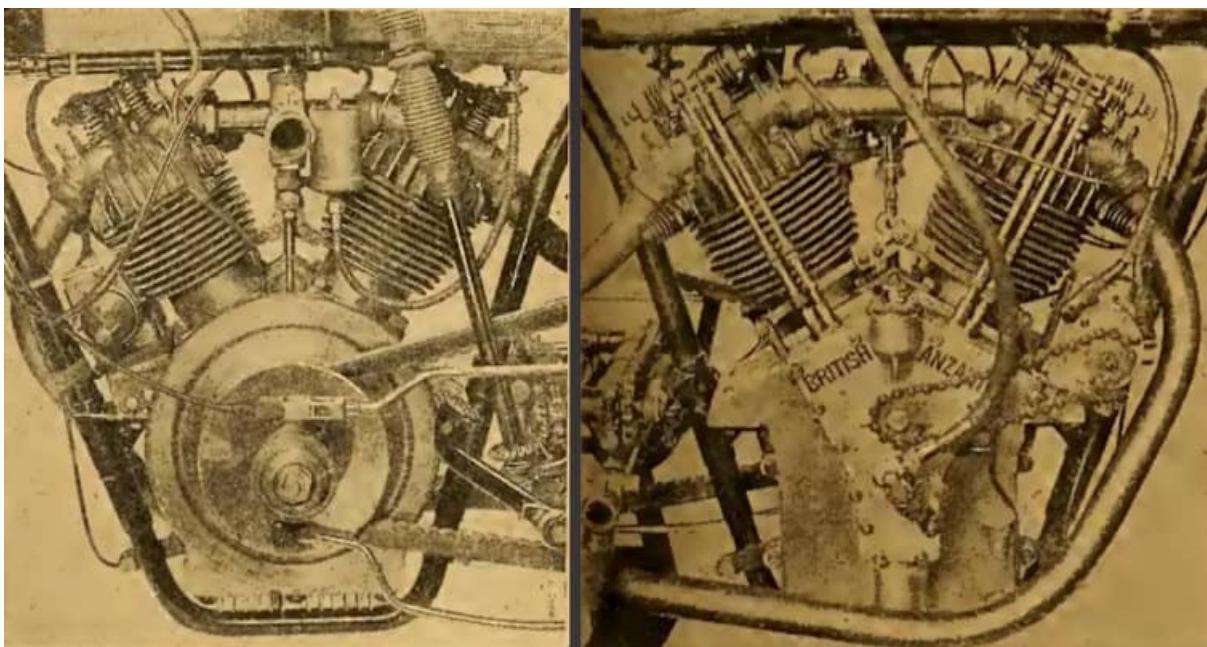
"As a change from the usual form of competitive event, the East Midland Centre ACU held a gymkhana in the grounds of Stamford Hall, Loughborough...Musical chairs a popular competition, and a test of driving skill, brakes, and the ease with which a passenger may alight from a sidecar. Last, but not least, of course the result depends on the agility and stamina of the

participants. (Right) A Triumph rider passing the timekeeper in the solo acceleration test, which consisted of a timed fifty yards from a start with stationary engines."



"A change from trials and speed events. (Left) Matchless owners in the wheel-changing competitions at the recent Woolwich, Plumstead & DMC Gymkhana. (Right) Scott and Sunbeam riders busy netting eggs."

"OF SEVERAL ENGINES WHICH MADE their debut at the recent five hundred miles race at Brooklands, the British Anzani, mounted in a Zenith motor bicycle, gave a very promising performance. We recently inspected this engine, which had not been interfered with since the event, and we were at once impressed by its condition. Externally, it had kept remarkably clean, whilst internally all the bearing surfaces were as new. Two cast iron cylinders, which have a bore and stroke of 83x92mm (998cc), are provided with detachable heads, which accommodate the overhead valves, the rocker arms for these being pivoted in brackets mounted on twin lugs. The rocker bearings are lubricated by wicks fed from a cup filled with grease, which liquefies when the engine gets hot. The engine, it is claimed, has developed 24.5bhp on the bench at a speed of 3,500rpm."



"It will be observed that very large combustion heads are used whilst the crank case anchorage, though somewhat unusual, allows the engine to be removed with ease. (Right) Exhaust valve lifting arrangement and the revolution counter attachment are clearly shown. The dimensions of the two-pint oil sump can be gathered from this picture."

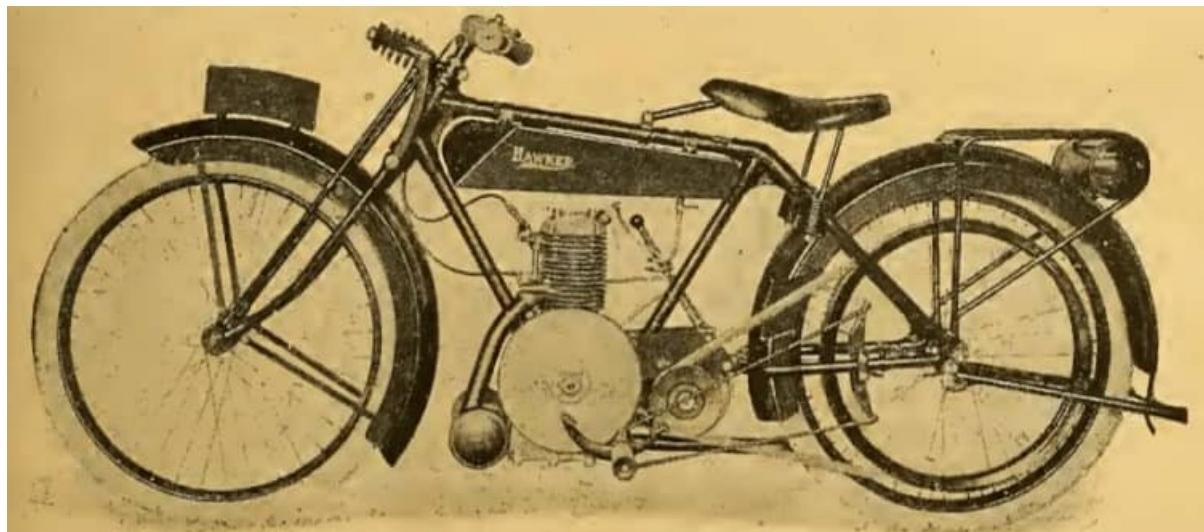
"FROM THE POINT OF VIEW of the ACU, there is at present no query as to whether the 1922 TT races will be held at Spa; the average motor cyclist, however, and, of still greater importance, that large section of the trade who view the change with disfavour, still regard the matter with an open mind. How many factors have had their bearing upon the ACU's decision is not generally known, but at the moment it would appear that, at any rate, there are enough probable trade supporters of the move to Belgium to ensure the success of the event financially, even though it might not be entirely representative of the British manufacturers. From the trade aspect, opinion seems fairly evenly divided, although there is a slight preponderance in favour of abandoning the Isle of Man. The motor cycle interests in the Isle of Man, of course, are indignant, and may be more so if there is anything in the rumour that a substantial financial inducement was offered by the Belgian authorities to the ACU to transfer the event to Belgian soil. It is realised, however, that the police and official annoyances this year had much to do with the change. Our aid has been invoked on behalf of the Manx motor cyclists, but in such a matter The Motor Cycle cannot take sides; our columns are open, however, for exchanging all shades of opinion, and our support must go to advance the greatest good for the greatest number." Two months later the Blue 'Un reported: "After all the annual Tourist Trophy Races are to be held in the Isle of Man in 1922. This is the decision of the ACU General Committee, which body last Saturday rejected the recommendation of the Competitions Committee to hold next year's race in Belgium. The race may be held towards the end of May or at the beginning of June, but in any case before the two car races already arranged for June 20th and 22nd. Among the ACU committeemen, opinion was clearly divided. The Belgian course had many attractions, the main one being the financial inducement offered to the ACU by the Belgian authorities for a race near Spa. Badly as the ACU needs improved finances, the Committee was clearly not ready to be over-influenced by monetary considerations. The event has gained its recognised importance on British soil, and the present is hardly the time to transfer many thousands of pounds to foreign soil. In view, therefore, of the promises and undertakings of the deputation which arrived from the Isle of Man, the air was cleared, and finally the decision to retain the Manx course was reached by an overwhelming majority...Nearly all the pin-pricks experienced by former visitors have been or will be investigated, and many concessions are promised, including a double daily boat service, a harbour crane for handling motor cycles properly, half an hour later for practising, a shilling registration fee for visitors' motor cycles, and assistance in various other directions...the side question as to whether the 500cc machine is too fast for the tortuous Isle of Man course, and therefore cannot show itself to advantage, must be left for further demonstration next summer."



From top left: "The latest accessory for Tan-Sad seats and saddles is a new back rest, which may be fitted to either; stirrups are available for pillion riders. For the convenience of the pillion passenger, a detachable arm rest, which, fitted in the socket shown, provides something handy 'to hold on to' (SG Baker, Sparkhill, Birmingham). To enable acetylene lamps to be lit without dismounting and without the use of matches is the purpose of the device we illustrate; the device, which clips on to any standard plug, also serves as a useful waterproof terminal, it is sold by Messrs Moss & White of Leamington Spa. A new and well-sprung carrier seat, which is manufactured by AH Swinford of Battersea. Rowbotham's magneto knife includes two grades of files, a spanner for the contact points, another to remove the central screw holding the contact breaker, a spark gap gauge, and, in addition to the ordinary knife blade, a prong. An emergency Bowden wire nipple—the Parsons—which should appeal very much to those who like 'to be prepared'. A long exhaust pipe, which, it is claimed, by reason of air-inlet louvres really does act as a silencer, is built up in sections, as shown (Matthew Harvey & Co, Walsall). A grip consisting simply of a suitably shaped, closely 'woven' coil spring; it is easily fixed by the special clip shown (The British Spring Co, Peterborough)."

"IN TAKING THE HAWKER TWO-STROKE machine through a test run of approximately 100 miles, its performance was judged with due regard to the fact that the machine was designed and produced by the HG Hawker Engineering Co of Kingston-on-Thames, as a comparatively inexpensive and extremely simple lightweight motor cycle...The design is original in many respects, and the ease of maintenance has been brought down to an extremely simple item for the in-expert person. For example, the lubrication system of the engine has no working parts, is entirely automatic in action, and one filling of oil lasts 500 miles. Then again, the speed gear consists of two primary chains running over sprockets of different sizes which are engaged by dog clutches located within a miniature 'gear' box, while decarbonisation is reduced to the simplest of jobs due to the detachable head—an important point in two-stroke engines. Our run was taken through ordinary country roads at average speeds from 15 to 30mph, and the first noticeable point in the machine's behaviour was the good steering qualities and really comfortable saddle. It is possible to ride 'hands off' without side sway, and pot-holes do not

affect steering. We found that the engine had enough power for the average hill on top gear, and at 25-30mph the unit runs smoothly, and with a nice reserve of power...Our test of the Hawker also included some city traffic work to and from the office, and the machine proved to be nippy and manageable in town traffic, the twin rear brakes proving efficient in use, on dry roads at any rate. It is in traffic work that a light solo mount scores, for the test specimens are so handy and easy to manipulate. The Hawker is an essentially no-trouble lightweight. The flywheel magneto is of very robust construction, and in the event of the engine being taken down, the timing of the magneto cannot be carried out wrongly on reassembly...Generally speaking, we were very pleased with the Hawker; it represents really good value for the person who has limited means and requires a simple and easily-looked-after mount. During the 100 odd miles of our run, the oil consumption was one-third of a pint, which is equivalent to 2,400mpg, and petrol consumption about 95mpg; the first figure is excellent and the second well up to the average."



"Near-side view of the Hawker lightweight. The magneto and flywheel are in one unit, but the contact breaker is very easily accessible through a small inspection cover in the flywheel casing. Note the twin belt rim brakes at the rear, operated by independent toe and heel pedals on the footrest.

"SKILFUL DRIVING BY UNKNOWN RIDER: Sir,—May I take the unusual course of thanking, through your columns, the motor cyclist who averted a nasty smash on the high road over the Snake from Glossop to Sheffield on a recent Monday. I was teaching my wife to drive my James outfit, and, stopping on a hill, we commenced to slide backwards across the road just on a nasty bend. A few seconds later a motor cyclist flashed round the bend at a high speed and a terrible smash seemed inevitable. The rider, however, instantly swerved, charged up the steep grass bank at the side of the road, and was away like a flash without looking round. I tremble to think of the result if he had hesitated a fraction of a second, and I would like to congratulate the driver of the machine whose number was, I believe, WA 4084, on a most marvellous exhibition of cool judgment and magnificent driving. The bank he charged up was strewn with large boulders, and how he avoided them is a mystery. Were we all possessed of such iron nerve the high roads would be much safer.

Novice, Sheffield."



This artwork was used over the ‘club news’ pages (yes, pages; the club scene was thriving) in *The Motor Cycle*. It’s reproduced here simply because it makes me smile.

IN A SINGLE ISSUE OF THE BLUE ‘UN the Club News section carried stories from the Westoe MC, East Midlands Centre ACU, Coatbridge, Airdrie &DMCC, Worcester MCC, Gravesend &DMCC, Bradbury MCC, Okehampton MCC and York &DMC. They ranged from results of speed trials and hillclimbs to: “On the occasion of a recent rally of Bradbury riders at Alms Hill, it was proposed to form a club, as above, for owners of these machines only. Those interested should communicate with Mr IAF Godwin, The Homestead, Belmont Road, Twickenham. An early example of what came to known as one-make clubs. There was also a list of ‘Weekend Club Events’: Taunton &DMCC&LCC, Fifty Mile Trial; Worcester &DMCC, Paperchase; Berwick &DMCC, Route Finding Competition; Essex MC, Twenty-four Hour Trial to Bale; East Midland Centre ACU, Closed Hill-Climb; Southport MC, Speed Trials on the Sand; Ilkley MC&LCC, Speed Trials for English Trophy; Ulster CC, Social Run; Surbiton &DMCC, Ballards Cup Trial; Newcastle &DMC, Knock-out Hill-climb; North Wales MCC, Sporting Trial; Oxford MC, Hill-climb; Helensburgh MCC, Petrol Consumption Test; Luton & South Beds AC, Reliability Trial; Surrey MCC, Hill-climb; Bristol MCC, Run to Wye Valley; York &DMC, Reliability Trial; Dewsbury &DMCC, Picnic; West Kent MC, Hill-climb; Birmingham MCC, Week-end Trial to Chepstow; Wolverhampton Auto Nomads, Weekend Run to Ludlow; Woolwich Plumstead &DMC, Picnic at Carter’s Hill; Stafford &DMCC, Run to Matlock; Cambridge & County MC, Reliability Trial; West Birmingham MCC, Social Run to Marchington Cliff; Stamford &DMCC and Peterborough MCC, Joint Speed Trials; Harrogate &DMCC, Social Run to Bolton; Sheffield MCC, Fishing Match at Drakeholes; Northern MC, Speed Judging Hill-climb; Exeter MC&LCC, Run to Double Waters, Tavistock; Leeds MU, Reliability Trial; Wakefield & DMCC, Run to Ilkley Moors; Basingstoke &DMC&LCC, Run to Lee-on-the-Solent; Central London MCC, Run to Frensharn Ponds; Halifax &DMCC, Run to Semer Water; Rochester, Chatham &DMCC&LCC, Run to Seasalter; Bradford MC&LCC, Wilson Cup Trial for Passenger Machines; Truro &DMCC&LCC, Evening Run to Gorran; Burton &DMCC, Run to Derby.”



...and here’s a typical picture from the club pages: “The illustration, which depicts a recent meet of the Okehampton MCC, denotes that the enthusiasm of the club members has not slackened as the season has progressed—not an unknown happening in some clubs.”

“CLUB SECRETARIES ARE REMINDED entries for the Challenge Shield to be awarded at the North London MCC Inter-club rally at Hendon on the 17th inst should be in the hands of the Honorary Organiser, ‘The Nook’, Wellington Road, Bush Hill Park, London, N, on or before next

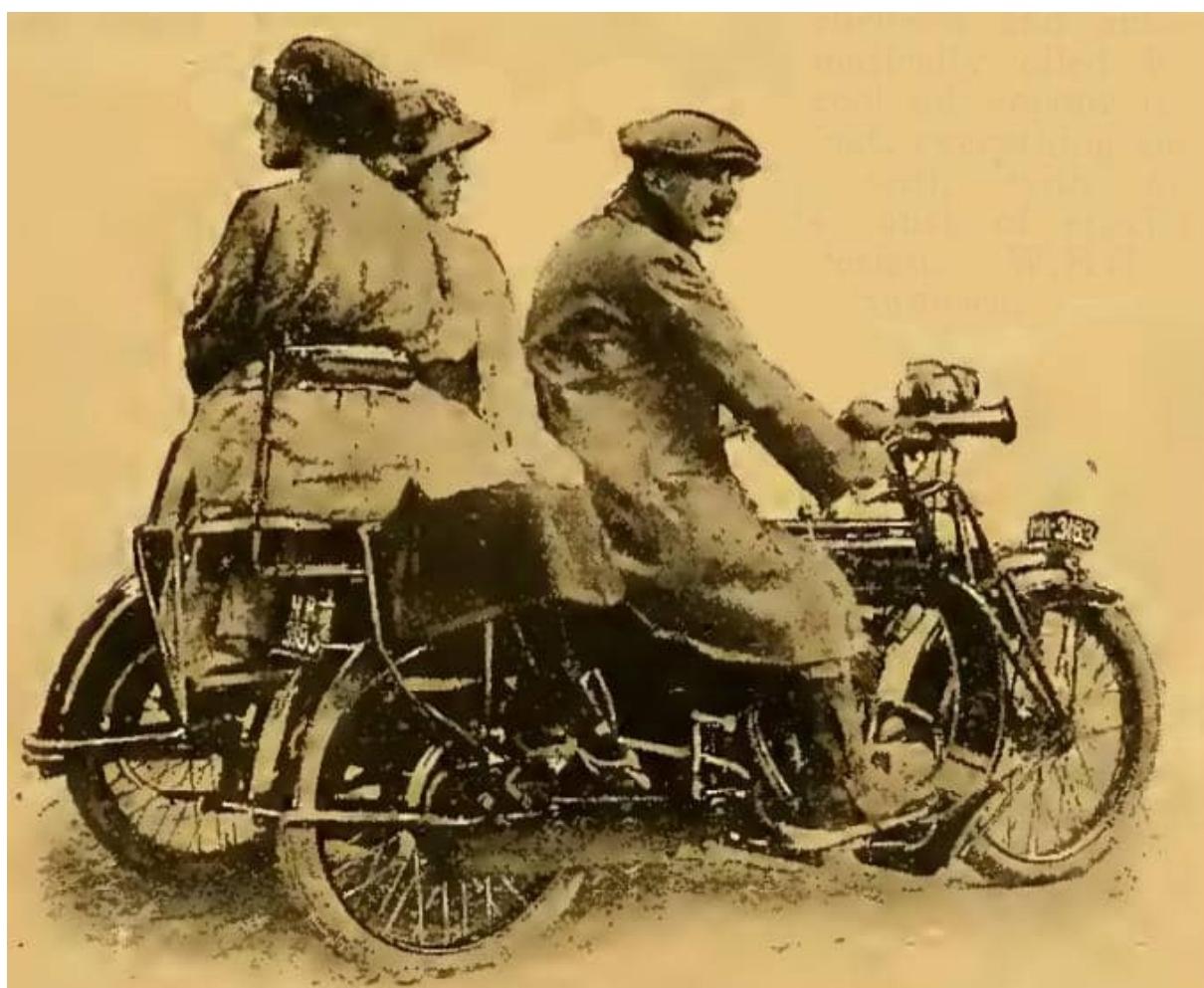
Saturday. There are several other prizes; and unattached motor cyclists are specially invited to attend what is believed to be the first big rally in London district."

"THE DEATH OF DORA [Defence Of the Realm Act]: DORA is dead. Various rulings to which we have become accustomed are automatically rescinded by the official 'termination of the state of war'. Lighting-up time reverts to the 'one hour after sunset' rule. Pedal cycles are now exempt from rear light carrying. The joy of a certain section of the cycle community who object to safeguarding others, and not least themselves, will be short-lived—because new legislation of a permanent nature is contemplated. By a curious anomaly, motor bicycles are not bicycles within 'the meaning of the Act'. Pre-war test cases established this unfortunate truth. Solo motor cyclists must carry rear lamps on their machines."

"HUDDERSFIELD IS, ACCORDING TO an AA report, the latest town to allot recognised parking places for motor vehicles."

"ONLY CHEAP AND EFFICIENT garage service is wanted in all our large cities to increase the popularity of motor cycling."

"A ROYAL MOTOR CYCLIST: It is some time after his death that we learn that the late King Peter of Serbia, always a sportsman, took to a motor cycle in his old age, and enjoyed speeding up to about 35mph."

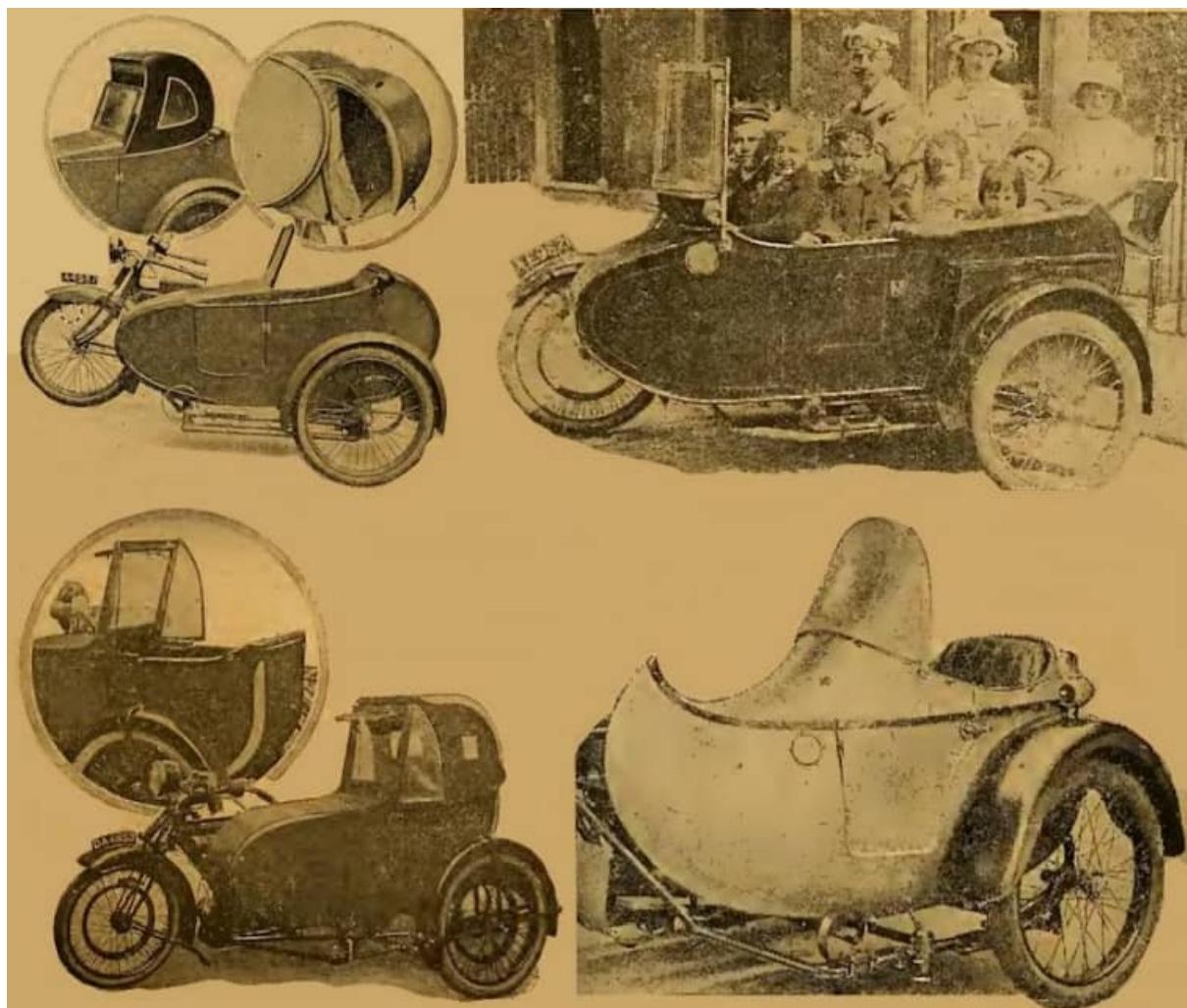


"A double pillion seat constructed by Mr J Fudge, of Chippenham. When an additional passenger is seated in the sidecar the rear tyre would appear to be well loaded."

"THE TORONTO MCC RECENTLY HELD its annual endurance run from Toronto to Windsor and return—a distance of 540 miles. Twenty-three started, and thirteen finished. Taking it all the way through, it was a gruelling contest, some bad spots on the roads and the terrific heat making rough going. The best performance in the run was made by B Mallory, mounted on a single-cylinder Triumph. He obtained one of the three perfect scores in the professional class (at 24mph average)."

"IF MY CORRESPONDENCE AFFORDS ANY INDEX," Ixion wrote, "there will be rows and rows of prop stands at the next Show. The motor cycling world is just tumbling to the folly of needless exertion. To the fact that kerbs are too high, or too low. That many absurd roads have flush edges. That lifting 3cwt is no joke. That the proper function of a rear stand is to minister towards tyre repair. That a Rolls-Royce does not have to be laboriously hoisted on to four jacks whenever the crew dismount. That—in short—we have been silly jugginses, and do not intend to remain such any longer. I cannot give free advts to them all, but a lot of earnest people are sitting up at nights with pencils, and several patterns seem likely to eventuate."

"THOSE WASTED YEARS: DO NOT quiver, prurient reader." Yes, of course it's Ixion. "You are not going to be treated to a tabloid summary of my lurid past. My cross-heading is inspired by the thought of the vast sums, now, alas, gone beyond recall, which I have expended on hotel bills during a somewhat vagrant existence. I hinted the other week that I have recently purchased one of those portable hotels known as campers' tents. I have just spent a healthful and interesting week with it. Trying moments occurred. The Primus stove carboned up its jet and perished its pump washer (mere trifles to a veteran motor cyclist). A needlessly bloodthirsty bull broke into my camping ground at 2am and sniffed horrifically at the partly open tent door—the far end of the tent being hermetically sealed by numerous ties and stout pegs. Once I waxed almost poetic in spirit as I gazed out of the door at 5am towards a sombre sea—and spied an enormous rat combing his whiskers after a hearty meal on my corned beef. There were earwigs. Also wasps. But take my word, it is the life, gentlemen. I am as brown as a berry, and ready to keep my temper whilst I tackle a rained out magneto in the open...I look forward to the day when the country will be dotted by the camping enclosures of a great motoring organisation, bossed by the ACU or the AA. For the main trouble about camping is finding the perfect site in a district which you do not know, and the second problem is getting leave to use it when you have found it...'dirty campers' have enraged so many land holders...my last site was freely decorated with open tins full of decomposed salmon and poisoned wasps. So neither my mystic signs, nor my sad, sweet smile, nor my honied words won the landlord. Old campers say the best 'Open Sesame' is to take with you a pretty girl, preferably clad in one of those cretonne frocks which begin late and finish early." But, let it be noted, only a few weeks later Ixion reported: "My enthusiasm for portable hotels, otherwise touring with a tent, is swiftly waning. The storm which broke on Sunday evening caught this poor scribe on rather an exposed bit of ground, where the soil, having been ploughed in 1920, was still rather soft. Readers who are cinema fiends and go to see such serials as *The Hooded Death*, or words to that effect, will remember the film hero's expression when the Black Hand collared him unarmed for the 'umpteenth' time, and attach him by the ankles and wrists to two express trains moving in opposite directions at high revs. Similarly, convulsed were my lineaments about 4am on that awful Monday, as the hurricane yowled ferociously round my frail tabernacle. For the future I may prefer something solid, with a bar to it."



From top left: "A new sidecar design, the hood of which folds completely out of sight inset on sight; the inset on right depicts the ingeniously conceived luggage grid. Eight or nine passengers is a normal load for this 5-6hp Enfield outfit of Mr WL Driver. A coupe top which disappears as required—it encloses the back panels of the sidecar body when out of use, swinging up from hinges level with the door. The illustration shows the complete protection afforded, and (inset) its invisibility and neatness when down. A special production of beaten aluminium."

THE FIRST APPEARANCE OF THE 3½hp twin Martinsyde was at the end of last year when it was shown at the Olympia Show by Martinsyde, of Maybury Hill, Woking; the machine has undergone considerable alteration and improvement since that date, and it reappeared in an improved form when it competed in the 500 miles race in the able hands of HH Bowen. Three of these machines have also been through the Six Days Trials—their first appearance in a long reliability trial. The chief alteration lies in the shape of the frame, which is of symmetrical appearance with a sloping top tube, which latter is brought into line with the back forks...the engine, which has a bore and stroke of 60x88mm (498cc), is a small replica of the larger type utilised in the Martinsyde sidecar outfit, and possesses the well-known features of the overhead exhaust valves, made of stainless steel, with inlet valves below them. Points of convenience have been carefully studied in this machine, and it is interesting to remark that the magneto is protected by a shield kept in position by a light spring, so that it can be swung forward at any time in order that the magneto may be inspected. The three-speed AJS-type gear box, though it incorporates a clutch, is not provided with a kick-starter. The oval section tank is secured by

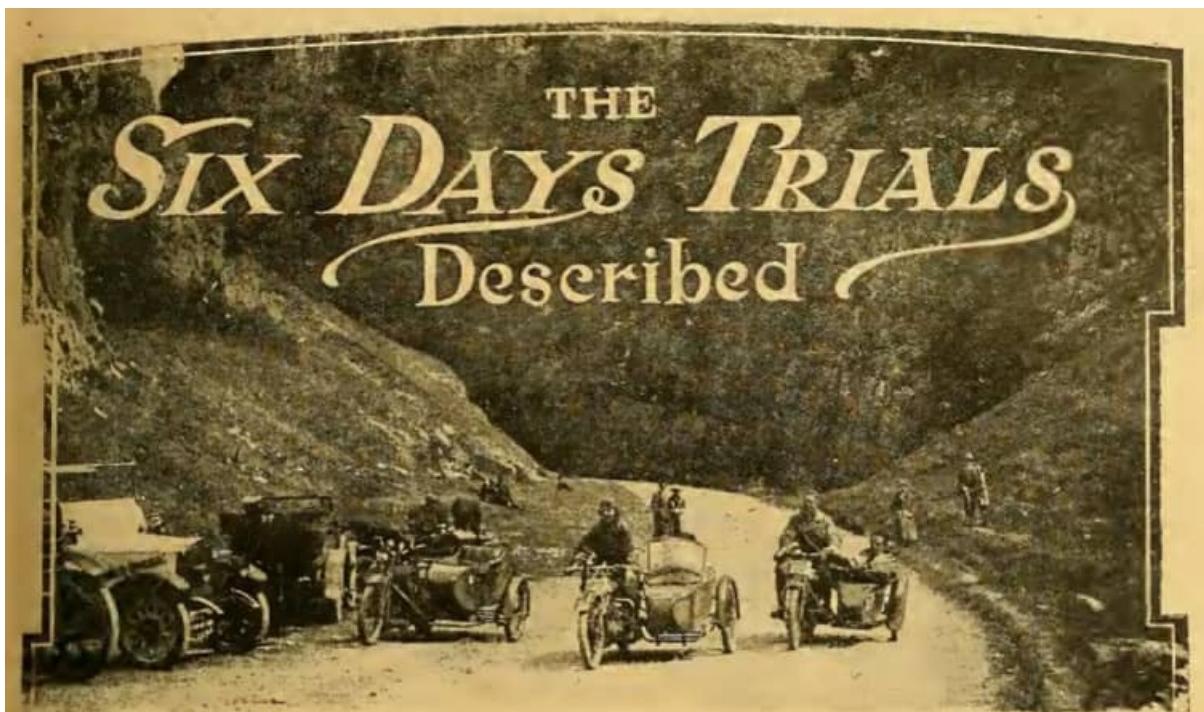
straps fastened on to lugs on the secondary tube, and holds one and a half gallons of petrol and three pints of oil...The weight is given- as under 300lb."



"The 3½hp Sports Martinsyde. The performance of this new model in the ACU Six Days Trials was watched with interest. (Right) A hinged magneto shield is fitted. Note the spring impinging against the exterior of the magnets holding the cover in place."

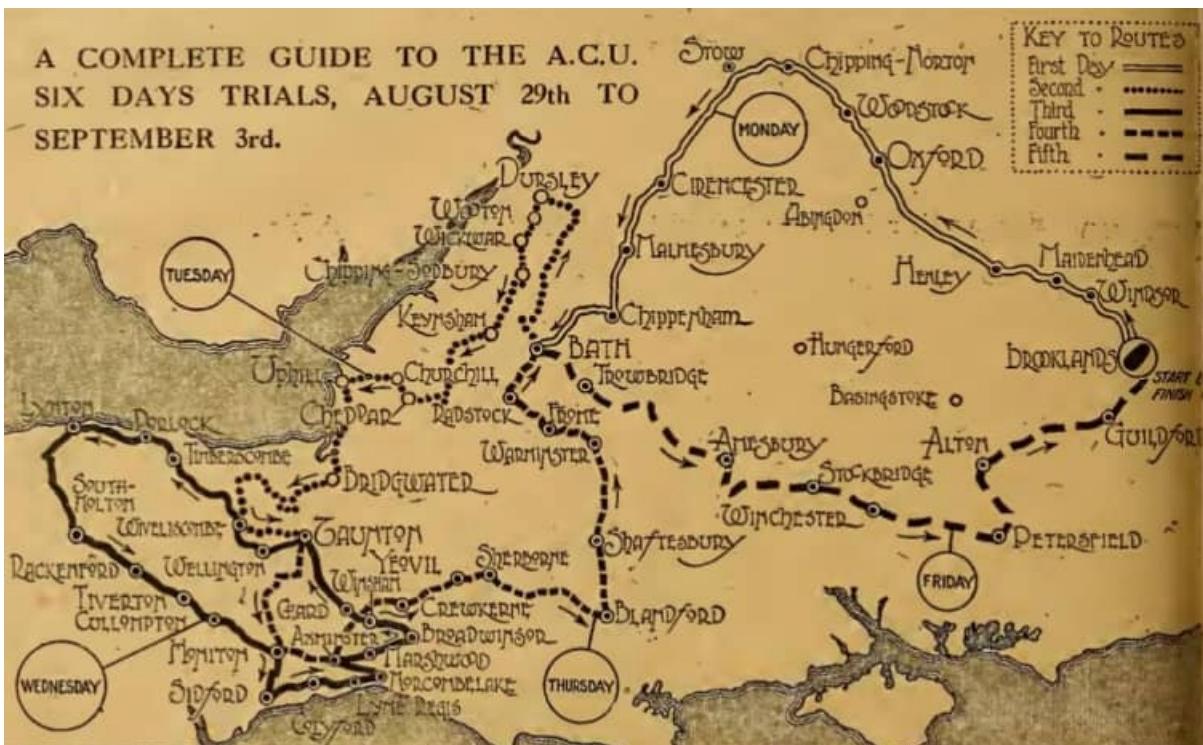


"A fine photographic impression of Brooklands racing: H Le Vack (7-9hp Indian sidecar) the scratch man, overtakes E Baragwanath (8hp Martin MAG sidecar) at the last Brooklands meeting. Le Vack's streamline sidecar is apparently useful! (Right) Originally intended for the TT, this new ohv Rover engine made its first public appearance at the last race meeting at Brooklands."

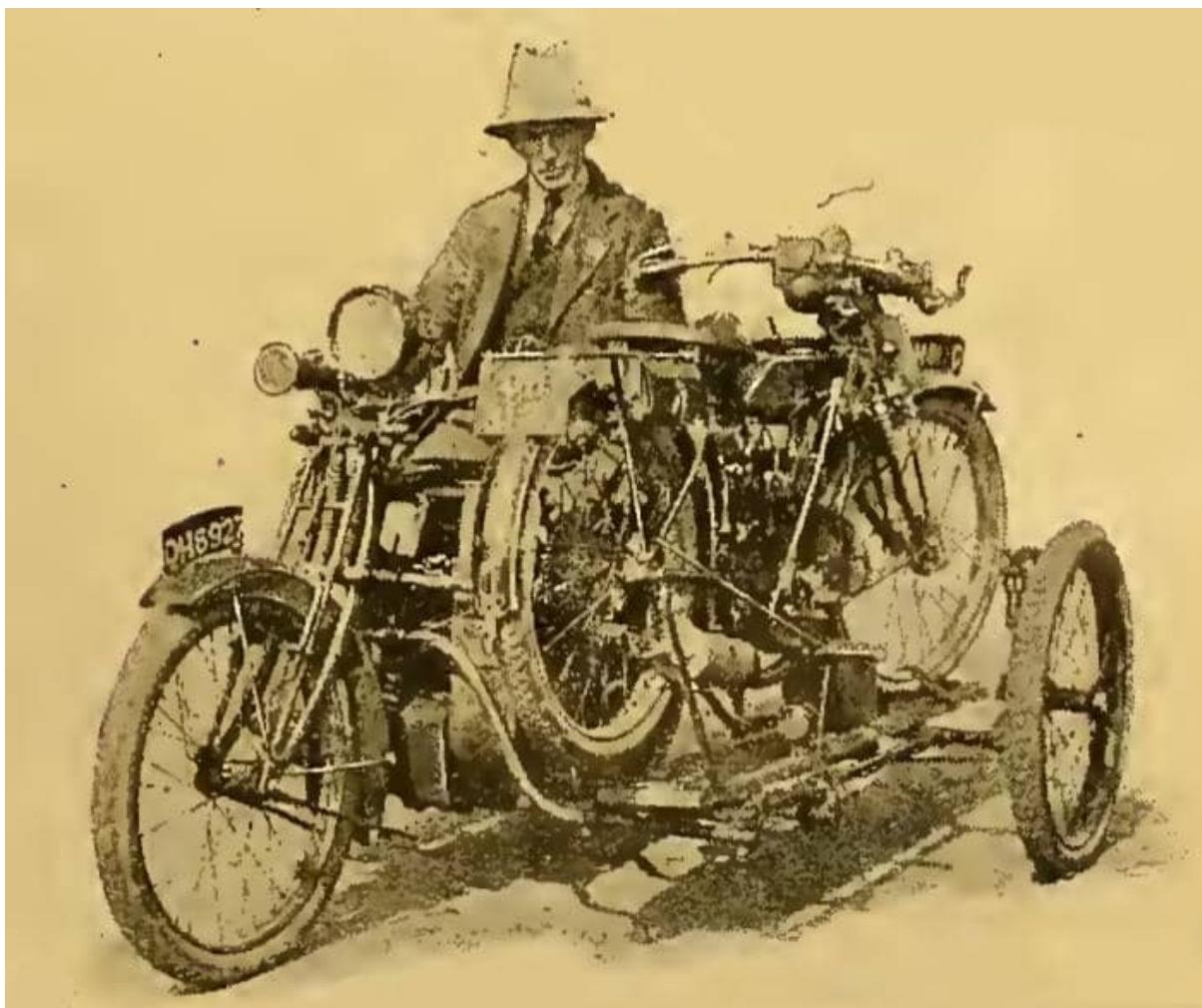


"Two private owner competitors, AL Cranch (5-6hp Rover sidecar), and N Clayton Russell (4hp Norton sidecar), passing a 'park' of tourists' cars and chars-a-bancs in Cheddar Gorge."

"USUALLY THE DAY PRECEDING the ACU annual Six Days Trials is one that spreads animation whichever town from which the trial may be starting. Last year it was Darlington, the year before Llandrindod, Wells; and most of the competitors arrived on the Saturday evening, filling all the important hotels, where regulations and prospects were discussed at length. With the riders were prominent members of the trade, and in hotel foyers they expressed their views on divers subjects of interest to all who have the welfare of the motor cycle at heart. Such occasions were general reunions of manufacturers, accessory makers and the press, as are the TT races and the Show; but this year at Brooklands all seemed changed. There had been no fraternising prior to the official examination last Sunday. The competitors arrived from north, south, east and west, and very few manufacturers accompanied them... the interest of the event would have been enhanced had those few important firms who have withheld their support been represented. We are sure that this decision not to support the big British trial in which the general public takes such an interest, is arousing criticism and absurd interpretations. The two main points in the ACU regulations to which this section of the trade took exception are the petrol and oil consumption tests, which are considered to be unreasonable, and the possibility of



losing awards on silence. It also appears that there has been friction between the Manufacturers' Union and the ACU; and the withholding of support is, we are informed, more in the nature of a protest than anything else...Among the better known firms who decided not to enter this year are the makers of the following: Triumph, Humber, Douglas, Beardmore-Precision, Blackburne, BSA, Sunbeam, Diamond, Enfield, Indian, Zenith, Norton, Levis, Verus, Dot-JAP, Velocette, NUT and Harley-Davidson. Of these, however, private owners are riding a BSA, Norton,



"Nursing a thoroughbred: Racehorses are never required to travel under their own power to the racecourse; why should motor cycles? This, however, is not Bert Kershaw's only reason for using this method of transporting his competitions New Imperial lightweight to the scene of its activities; he is able to take Mrs Kershaw with him on a Tan-Sad."

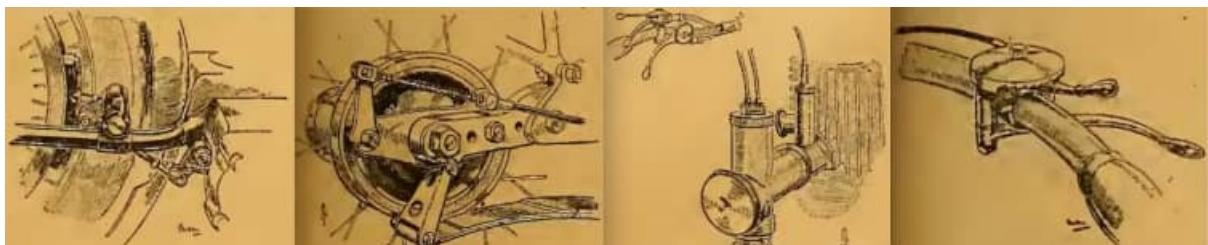
Sunbeam, Harley-Davidson, and Douglas...at least two well-known makes re-enter the official big trial after several years' absence. We refer to the Rudge entry of four, and the three four-cylinder FNs. Entries are down from 133 in 1920 to 95...External expanding front wheel brakes are almost universal. James, AJS, New Imperial, Rover, Ariel, and Douglas are amongst the many which have internal brakes on either front or rear, or both, wheels...sunshine with real summer heat attended the competitors during the official examination at Brooklands. It would not be an ACU trial if someone did not grumble, but it was distinctly noticeable that there was less grumbling last Sunday than prior to any previous English Six Days...Bert Kershaw arrived astride an 8hp New Imperial, with his competition lightweight fixed on a special sidecar chassis...



"All Sunday afternoon competitors formed a queue to enter the enclosure where the machines were officially examined and sealed."

Monday, 135 miles. Route: Brooklands, Chertsey, Staines, Windsor, Maidenhead, Henley-on-Thames, Benson, Oxford, Woodstock, Enstone, Chipping Norton, Northleach, Cirencester, Crudwell, Malmesbury, Chippenham, Box, Bath.

Brilliant sun, blue sky flecked with light clouds, and a cool west wind—what better starting conditions for a Six Days could man desire? Some of the riders opined that the head breeze would spoil their petrol consumption. The men, as usual, were full of chaff and forebodings. Most of the chaff was aimed at the ACU officials for their sagacity in holding the brake test on the first day instead of on the last; but some was reserved for those unfortunates who had been tinkering right up to the fifty-ninth minute of the eleventh hour, and notably for one poor fellow who seized his engine on Saturday, and had since reduced his piston diameter by .001in with a hand file...The roads were practically level, and most of the mileage was over smooth tar,



"Rear brake mechanism on the new chain drive ok sidecar outfits; adjustment is provided at two points. The new internal expanding rear brake fitted to the Coulson-B. Bowden extra air valve used on all the AJS machines; the inset shows the mounting of the handle-bar control. Throttle and accelerator lever on LH Wells' Hawker."

so that even the most infantile small two-stroke could average 30mph without flurrying itself. There were no fixed timing stations, and if Mr Ebblewhite took any 'secret' checks, his car was far too ostentatiously posted to catch anybody napping...CH Hanwell (2½hp Cedos), who had been working late, went to sleep, and fell off his machine two or three times...The weather continued fine, except for a sharp shower at six o'clock, which nonplussed some of the polish and duster brigade...Creak Davis retired at Oxford through indisposition, the jet of Hanwell's Cedos came unscrewed and drained his tank, compelling him to break the seals and incidentally revealing a flaw in the petrol regulations. The tank of Nicholson's 3½hp Martinsyde ran dry within pushing distance of Bath, where the local club had made excellent hotel and garage arrangements. Two of the lightweight sidecars (Peaty's 2½hp Hawker and Hall's 2½hp

OK) were seen in trouble near Chipping Norton. The bulk of the men checked in at Bath, with their mounts in showroom condition after the easiest day ever experienced in a big trial.



"Machines ready for the official seal. Mr AV Ebblewhite busy on a Norton outfit. (Right) The brake test. Observe the ACU official with flag carefully scrutinising HF Fellows on a 4hp. Coulson-B."

Tuesday, 155½ miles. Route: Bath, Weston, Caleot Farm, Dursley, Wooton-under-Edge, Kingswood, Wickwar, Chipping Sodbury, Keynsham, Bishopsworth, Cheddar Ounch, Bleadon, Highbridge, Bridgewater, Spaxton, Kingston, Crowcombe, Wivelscombe, Norton Fitzwarren, Taunton.

Bright sunshine, a rising glass, and a cool, light north-west wind graced Tuesday morning's start...The standing proverb about the Six Days is that the silly men drop out on the first day and the unlucky men on the second day. But this trial broke all records in easiness for two days...roads were sometimes narrow and twisty, occasionally rough, but never difficult. Half a dozen hills were officially observed, but their good surfaces and gentle gradient permitted any good 500cc solo to climb on top gear, or, at the worst, on second gear, with the throttle practically shut. The ride would have been actually boring for most of the competitors if the hope of earning bonus marks by phenomenally low petrol and oil consumptions had not kept them busy. Extraordinary efforts are being put forth in this direction, and the week's consumptions are likely to prove illusive to the general public. Many riders free-wheeled down every slope, long or short, steep or gentle, and several sizeable engines are expected to register 120mpg of fuel for the week...Ebblewhite was out trying to trap men ahead of time. In the descent of Cheddar Gorge, Clayton Russell upset his Norton and cut, his forehead, but was able to continue. Cheddar was crowded with enthusiastic visitors, some of whom climbed several of the day's test hills with four, five, or even six, passengers on their sidecar outfits...Stobart's James sidecar unfortunately collided with a motor van eight miles out of Taunton. The frame was too badly buckled for further participation in the trials.



"In a Somerset playground: FJ Ellis and F O'Brien piloting their Matchless sidecar outfits through

Cheddar Gorge during the Six Days Trials. This famous beauty spot is one of the most popular resorts in the West Country. (Right) The Six Days Trials in the West: On part of the Devonshire portion of the route, FJ Watson (6hp Ariel sc) near South Molton."

Wednesday, 175 miles. Route: Taunton, Wivelscombe, Raleigh's Cross, Heath Poult Cross, Timberscombe, Wootton Courtney, Luccombe, Porlock, Lynmouth, Parraoombe, South Molton, Rackenford, Tiverton (lunch), Cullompton, Honiton, Sidford, Colyford, Lyme Regis, Morecombe lake, Marshwood, Broadwindsor, Winsham, Chard, Combe St Nicholas, Taunton.

Wednesday morning broke fine and cool, thus robbing the one stiff day of all its terror. Porlock and Lynton hills were firmer and smoother than we had ever seen them. Edwards, on the 2½hp Coulson-B, never required bottom gear except up these two famous hills, and the score sheet indicated that, if the speed and condition tests at Brooklands on the last day failed to impose heavy penalties, an unparalleled percentage of gold medals should be won. Wednesday's route included no fewer than thirteen observed hills, but many riders roared up ten of them on top gear, and very few of the climbs reduced the smaller engines to their bottom ratios. Ariels, ridden by Newey and Woodcock, made easy ascents of Porlock, and when a privately-owned Triumph, with a lady on the carrier, went by, it was clear that Porlock had lost its terrors...The four-cylinder FNs made an excellent impression, climbing steadily and swiftly. The Scotts, too, were admired. Spectators appreciated the fact that the various makes were grouped together in the programme, and the men themselves ran so regularly that on hills the teams went up in a bunch...The four-speed P&Ms all made steady and sure ascents. North deserves special praise for the handling of his diminutive OK sidecar, which never faltered on Porlock. Three Martinsyde sidecars indulged in a little TT up the hill as they ascended almost side by side...When the lightweights arrived, Wall (Cedos) proved that the Somersetshire terror is no match for 250cc miniatures, but Lidstone (James) footed and then walked alongside, although he kept his engine running...Lynton was thronged with spectators, who were massed so as to obscure the riders' view of the hairpin, so that Cunningham's P&M narrowly missed crashing into the wall of rock on the left...Foster, on the Raleigh, got a special cheer because he tried to take a V turn up towards Lynton, and recovered finely when the crowd roared at him to go straight on...The Rev JW Fortnum was standing in the main street at Taunton with the world 'Observer' printed on his armlet. A working man going home to tea sang out, 'Got a paper guv'nor?' 'Sold out!' replied the ready parson...At Lynmouth the local milkman essayed to climb the hill with two enormous churns in the sidecar of his Triumph. He took the hairpin in fine' style, and was loudly cheered. Higher up he conked out, and was immediately cheered again...The favourite jibe is to ask Mr Loughborough whether the trials route was planned by the Touring Department or the Competitions Committee...Why is the ACU so fond of Taunton as a trials centre? Trouble always arises about accommodation. This year many men who had bought official coupons found themselves banished to back street villas over a mile from the official garage. A troop of boy scouts kindly attended to guide the exiles.



"A well-known 3½hp sidecar outfit now having four speeds instead of two—the P&M—on the difficult corner of Lynton. Observe the loose surface. (Right) The Junior TT winner, Eric Williams (2¾hp AJS), makes a neat turn on the Wheatham Hill hairpin."

Thursday, 133 miles. Route: Taunton, Hemyock, Dunkerswell, Axminster, Perry Sheet, Crewkerne, Yeovil (lunch), Sherborne, Durweston, Shaftesbury, Warminster, Frome, Radstock, Bath.

To-day's run proved to be another personally-conducted tour over 133 miles of absurdly easy country...none of the observed hills were steep enough to fetch a three-speeded baby two-stroke off its middle gear, the officials had a sinecure, except when some unfortunate changed up instead of down by mistake (as Lewis did with his P&M on Honiton Hill), or failed to get his gear lever well home in the gate (as happened to Buckle's FN on Brass Knocker Hill).

Thunderstorms oscillated over Somersetshire all the afternoon, and certain sidecars contained enough water by tea-time to put up the petrol consumptions quite appreciably...On arrival at Bath, a good many competitors had an unpleasant surprise. The silence marks were posted up, and twenty-eight men were penalised, of whom twelve had previously claimed clean sheets...Tom Peck damaged his crank case oil union irretrievably in tightening a nut. Lewis on his P&M muffed a gear change on Honiton Hill, and Buckle's gear lever slipped out of its notch on Brass Knocker. FC North lost his first time marks in the afternoon through a series of misfortunes, the OK sidecar having a spotless record up to that point. A plug sooted up, and North promptly inserted the spare which all good motor cyclists keep ready to hand. Presently the spare plug fused its points, and some time was wasted in unearthing another spare. Within a mile the third plug also failed, and everything had to be unpacked again...The rainstorms on Thursday afternoon proved that very few licence holders are waterproof...Mr Easting, of windscreens fame, presented each competitor with a neat leather cigarette-case, full of Gold Flakes, designed to buckle over a Bowden wire on the handle-bar...Tank filling is a long job. Each ounce of oil and petrol is precious, and the men will not have the funnels withdrawn from their tanks till they are bone dry.



"The Six Days Trials route passed through some beautiful and typically English scenery of the

pastoral type. WL Dankin and FT Sibley, on 3½hp Rudge 'three-speeders' passing through the characteristic village of Shepham on the first day's run. (Right) HG Bell and TW Buckle, on four-cylinder FNs at Henley, on a section of good main road, so different from the average Six Days' routes."

Friday, 131 miles. Route: Bath, Trowbridge, Edington, West Lavington, Maddington, Amesbury, Castle Hill, Lopcombe Corner, Stockbridge, Winchester (lunch), Bramdean, Petersfield, East Tisted, Alton, Brinsted, Hogsback, Guildford, Ripley, Brooklands.

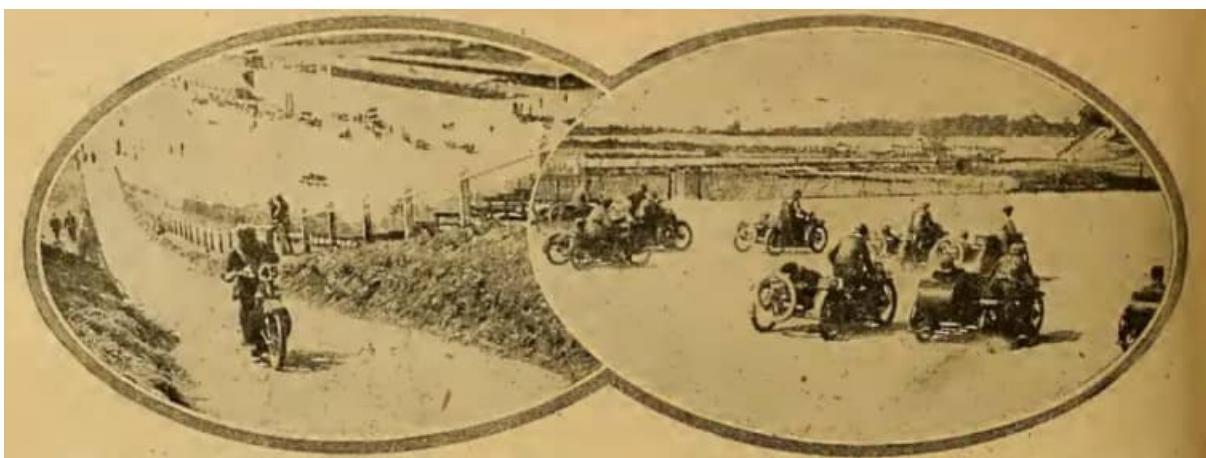
The last day's road work seemed likely to be damp, for the sky was grey and lowering. Descending Brass Knocker, a long top gear rise led towards Trowbridge and over the plains past Stonehenge, but hill tests were absent. The riders—or, as some people call them in memory of the war, the 'PBI'—were despatched by 130 miles of devious roads, containing many loose flints and sandy stretches; but the gods were just, and no appreciable rain fell along the trials route. Everybody had grown quite contemptuous about the observed hills, but, after passing Petersfield, Wheatham Hill caused quite a lot of fun. Its second hairpin is quite violent, and the marshals had cunningly trained the spectators to be impassive. So everybody fancied the hill went straight on until they sighted a nasty little trail of blue doubling backwards...Wall took his Cedos right on top of the bank, and came off it again in proper Brooklands fashion...Gifford's Martinsyde had cruel luck on Wheatham—one of its plugs fused a tiny metal thread across the points... lot of trouble occurred during the day. Cranch shed the silencer of his Rover, and, as he was riding in close company with other machines, did not miss it for seven miles. When he recovered it, he left his suit case in the road, and once more retraced his tracks—this time in vain...Readers will notice that this report contains far fewer 'bouquets' or 'mentions in despatches' than usual. It is quite impossible to single out individual riders or machines when the allotted task is so easy that everybody performs it comfortably, and, in addition, the paralysing petrol economy business prevented the men from attempting any speed work on the hills. The general impression made upon the spectators was that practically every machine was toying with its job...The organisation throughout has been excellent. If some critics complain that the road work has been child's play, it nevertheless approximates very closely to the ordinary riding of the average owner...Harveyson (Harley) finished the road trial in a grey bowler hat, and one of the Ariels carried the '720' milestone on his back. According to Loughborough, fewer men were standing for golds on Friday night this year than in the 1920 trial at a similar stage, ie, immediately before the speed test. This seems incredible; the secret checks must have caught a lot.



Fuel-consumption was carefully monitored throughout the trial. (Right) "FC North (2½hp OK sidecar), deservedly one of the most talked of riders in the trial, followed by Graham Oates (2¾hp Edmund), at the top of Wheatham Hill."

Saturday, speed tests at Brooklands: 250cc, 25 laps at 30mph; 350cc, 25 laps at 35mph; 500cc, 25 laps at 40mph; 750cc, 25 laps at 42mph; 1,000cc, 25 laps at 45mph; 600cc sidecars, 25 laps at 32mph; 1,000cc sidecars, 25 laps at 35mph; cycle cars, 25 laps at 36mph.

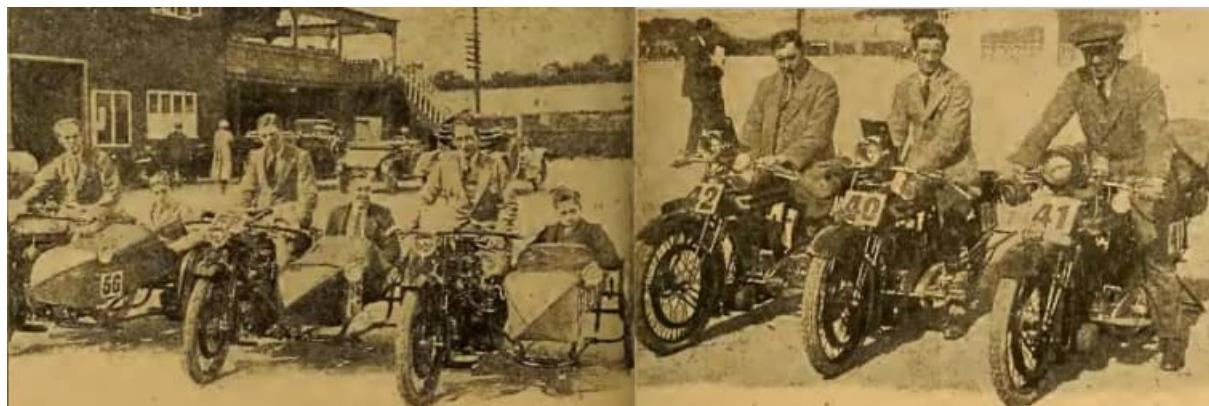
The officials had a harassing day on Saturday. The 250cc and 350cc machines had their tanks drained to complete the measurements of oil and petrol consumption. At 7.45am these two classes were started on their twenty-five lap speed test...In an hour or so the small machines had completed their speed test, and climbed the test hill before undergoing the final examination for condition. After a chilly dawn, the sun shone out in blistering fashion, and the ACU staff must have been very weary men by nightfall...The AJS trio are said to be capable of a good 55mph, but there was no sense in taking risks, and they were content to lap in a clump at about 38mph. Kershaw, on the 250 New Imperial-JAP, was audacious enough to lap them by the half distance, and maintained his three-mile lead of the entire field to the finish, heading his stable companions by the same distance...Handley created great excitement by putting his OK on its stand right in the centre of the track when a plug needed attention...The 500cc and 750cc classes were next on the track, and as the oil consumption was no longer measured, we saw blue exhausts for the first time in the week. Several serious stops marred the speed of the bigger solo machines. Both the Dunelts burnt out their carbon brush holders, and Cathrick retired for this cause in his seventh lap. Nicholson (3½hp Martinsyde) seized his gear box on his eighth lap. Dankin (3½hp Rudge) broke a valve on his fifth lap, and the Duzmo retired after a regular packet of assorted troubles. The oil connection of Newey's Ariel broke away, but he tied it up with a handkerchief. Searle (Henderson) ran out of oil, and Strange (James) punctured. The remainder enjoyed smoother experiences...The lame dogs of this class trailed on for a long time, as everybody who was not more than one hour late each night got a certificate. The big sidecars in Class G occupied the full width of the track when they were lined up, with hubs all but touching, in front of the timekeeper's box, and their start was a magnificent spectacle. Considerable rivalry existed, to which the uncertainties of the team prize added fuel, and the leaders set a cracking pace for several laps until prudence reasserted itself. Four Matchless outfits jumped off with a good lead, and O'Brien drove as if his riding orders were to play the hare, whilst his colleagues played the tortoise. Singer had a long stop on his fifth lap, and Breese needed more oil after fourteen laps; some of the back tyres were stained black by oily exhausts. On the eighteenth lap O'Brien had a stop, and Ellis took the lead, which he held to the finish, he and his passenger contriving to replenish their oil tank as they roared round at speed. It transpired that O'Brien was



"Having completed twenty-five laps at speed after the five days road test, competitors had to

climb Brooklands test hill before the final examination. W Moore, who gained a gold medal on his Scott. (Right) Start of the track test for high-powered sidecars. There were only two retirements in this section. Quite an impressive spectacle was provided by the start in this class, as the machines almost covered the width of the track.

changing a valve. The positions kept changing in kaleidoscopic fashion, but the stoppages were few and petty, except that Fell-Smith (Brough-Superior) broke his back exhaust valve, damaged a cylinder, and had to be towed in...One competitor averaged 2,400mpg of oil on Monday, Tuesday, Thursday, and Friday. But Wednesday's hills pulled his average down to 1,500mpg...Several of the competitors actually cleaned their machines as they rode along. This practice was specially noticeable towards the final check on each day...Late in the week the ACU rang up the London Office of The Motor Cycle to enquire if we could furnish thirty-six lap scorers for the speed test. The Martinsyde Co kindly furnished no fewer than twenty-two of the required number...The trade teams usually 'clumped' in the speed test. The P&M sidecars were never far apart. But the palm must be awarded to Howard Davies, Williams, and Harris, whose three AJS machines lapped abreast, as if they had been dressed by a sergeant in the Guards. **Provisional results:** 89 starters, 20 retired, 54 gold medals, 6 silver medals, 3 bronze medals, 3 certificates, 1 disqualified. **Basis of awards:** marks credited at the start, 545, made up of reliability, 100, hill-climbing, 100, braking, 25, silence, 20, speed, 100, petrol consumption, 50, oil consumption, 50, condition at finish, 100. Every competitor who has not lost more than 10% of the marks allotted him under each of the eight tests is awarded a gold medal; if not more than 20%, a silver medal; if not more than 25%, a bronze medal. Certificates are issued to all who complete the trial.



"The P&M sidecar team—P Cunningham, GM Townsend, and R Lewis, who rode the new 3½hp four-speed model and qualified for the team prize in Class 7 (600cc sidecars). (Right) GW Ravenhall, R Elliott, and G Featherstonhaugh, who, on 3½hp Rovers, won the team prize in Class C (500cc)."

Class leaders: 250cc, B Kershaw 2½hp New Imperial), 577; 350cc, GF Mason (2½hp Connaught), 610; 500cc, G Strange (3½hp James), 616; W Moore (3¾hp Scott), 631; 600cc sidecars, GM Townsend (3½hp P&M), 601; 1,000cc sidecars, R Croucher (8hp Matchless), 632; cycle cars, HFS Morgan (Morgan), 627. **Best petrol consumption:** 250cc, L Horton (New Imperial), 127mpg; 350cc, CL Sprosen (Connaught), 132.5mpg; 500cc, G Strange (3½hp James), 101.6mpg; 750cc, W Moore (3¾hp Scott), 98.1mpg; 600cc sidecars, A Milner (2½hp OK), 87.7mpg; 1,000cc sidecars, MC Russell (Norton), 77.35mpg; cycle cars, HFS Morgan (Morgan), 61.1mpg.

It was generally agreed on Saturday that the 1921 Six Days Trials of the Auto Cycle Union were the easiest yet planned. But for Wednesday's trip over Exmoor, the conditions encountered

were less severe than a motor cyclist includes in his holiday tour...The most difficult test of all was undoubtedly the twenty-five laps of Brooklands as a wind-up to the road test. Trouble and breakdowns were frequent in this speed burst, some of them admittedly due to the riders setting themselves too hot a pace in order to gain bonus marks." Ixion, not for the first time, had the last word on the Six Days Trial: "Really there is no pleasing some people. Last year the ACU hills were criticised as machine-smashing precipices, and this year, with one or two exceptions, as the sort of grade up which any healthy troop of boy scouts could double with their trek carts. I noticed that each hill, however insignificant, drew its assembly of the local k'nuts, whose rapt earnestness proclaimed that they were interested in the climbing. If this type of rider ventures to visit Porlock or Lynmouth,



"The New Imperial Team won the team prize in Class A. The riders—B Kershaw, D Prentice and L Horton—are shown with their machines."

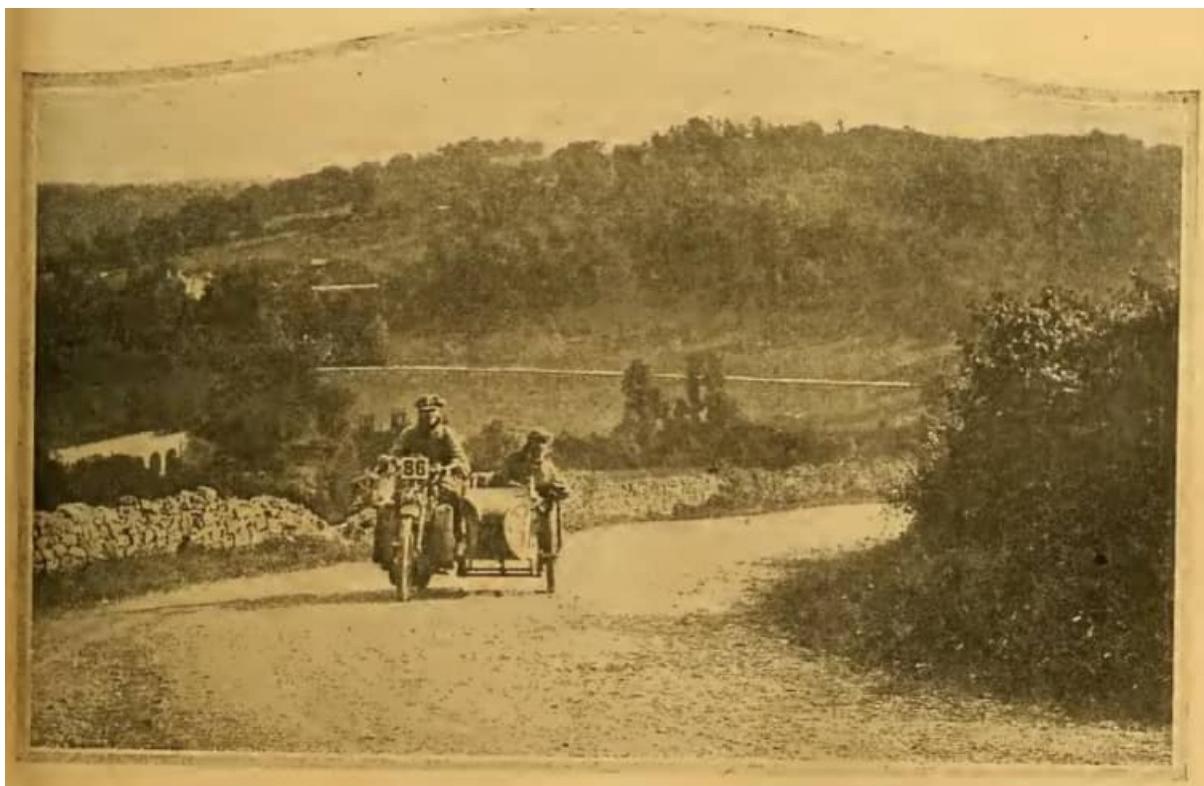
he talks about it for months, or even years, afterwards. I believe the 1921 trials represent popular hill-climbing standards far more accurately than ever the 1920 event did...In 1920 the ACU staged a regular machine-smasher of a trial. They compounded a prescription in which the Alps and the devastated Somme area were the principal ingredients. They stopped us all on Summer Lodge. They made us sport for gods and men up Park Rash. They caused the sturdy tykes to guffaw by washing out these failures and cutting Rosedale Abbey Bank out of the trial when the procession had nearly reached the foot of that super-gully. Their final mood of 1920 was enduring, for it dictated the 1921 course, which consisted of four short joy-rides over flattish roads on Monday, Tuesday, Thursday, and Friday; a hilly tour on Wednesday, which might have been Waterloo for many if rain had fallen in sheets, but was actually less arduous than fifteen of my pleasure runs this season; and on Saturday they subjected the survivors to seventy-six miles of two-thirds throttle on Brooklands bumps. By a perfectly comic series of contretemps, many leading firms abstained, and so robbed themselves of the easiest gold medals which the ACU ever awarded. The machines were subjected to just the kind of test to which nine private owners out of ten put their mounts. There were no freak tasks. Nothing was

exaggerated. The trial reproduced with considerable accuracy the riding conditions of private ownership—easy roads, short distances, moderate speed, and fair weather. Even the concluding speed burst on Brooklands was not excessive; in a year the average commercial machine does a greater distance at similar speeds, with



"In this close formation, the AJS team—which won the 350cc class team prize rode throughout the twenty-five laps at Brooklands, at a speed of nearly 43mph. Reading from the left: Eric Williams, HR Davies, and NF Harris. (Right) The winning AJS team in Class G (1,000cc sidecars). Rex G Mundy, O Wade, and FW Giles. They all rode consistently, and appeared to find the whole trial a pleasure run."

an inexpert driver up, without special tuning, and often with a far greater load on board (eg, a pillion flapper, an extra passenger or passengers in the sidecar, a good weight of extra luggage, and over inferior surfaces)...the machines were demonstrated to thousands of potential motor cyclists in the southern counties. They were displayed toying with tasks which are their routine work. The exhibition can have done no harm, and may have done lots of good. By contrast, the crowds at the 1920 hills consisted chiefly of people who were already motor cyclists, and who came to see acrobatics and obtain thrills while such non-riders as were present were frightened, or shocked, or disgusted. 1920 was certainly bad propaganda; the quality of the 1921 propaganda is questionable—no sensible man found it impressive...it is stated with great emphasis that 1921 was the first trial to show the heavy sidecar in its true colours. In most Six Days events, Saturday reveals a shattered battalion in this class. Many of the entries have fallen by the way; and those who survive are alleged to be lashed together with copper wire. This year twenty-three big sidecar outfits were entered. One driver fell sick, another hit a lorry; and twenty-one arrived, intact and resplendent, at Brooklands...Next year the pendulum will swing the other way. The trade are quite cute enough to see that an easy trial, which furnishes our best machines with no more credit than is earned by the Bugmobike, of which only three have ever been constructed, is of little use to anybody. Those obstreperous trade influences which smoothed down the 1921 event will be clamouring for something stiff, yet sane, next year. Public opinion will push in the same direction. The ACU learnt in 1920 that it must not overdo the 'colonial' stunt. After its 1921 experience, it will not be likely to underdo it."



"A charming 'six days' scene. A fine panorama for the top bend of Brass Knocker Hill, which was ascended by competitors on the fourth day. PW White (8hp Sunbeam sidecar) making light of the hill."

"THERE ARE SEVERAL SIDECAR OUTFITS in this country fitted with reverse gears, the utility of which appears to be confined to providing amusement for friends of the owners. The other evening a member of The Motor Cycle staff found a reverse distinctly, disconcerting. He runs a large two-stroke outfit. On starting the engine, he failed to observe that it was running in a direction reverse to usual, and only discovered this on engaging the gear. Two-stroke owners should not start their engines with the ignition too far advanced."

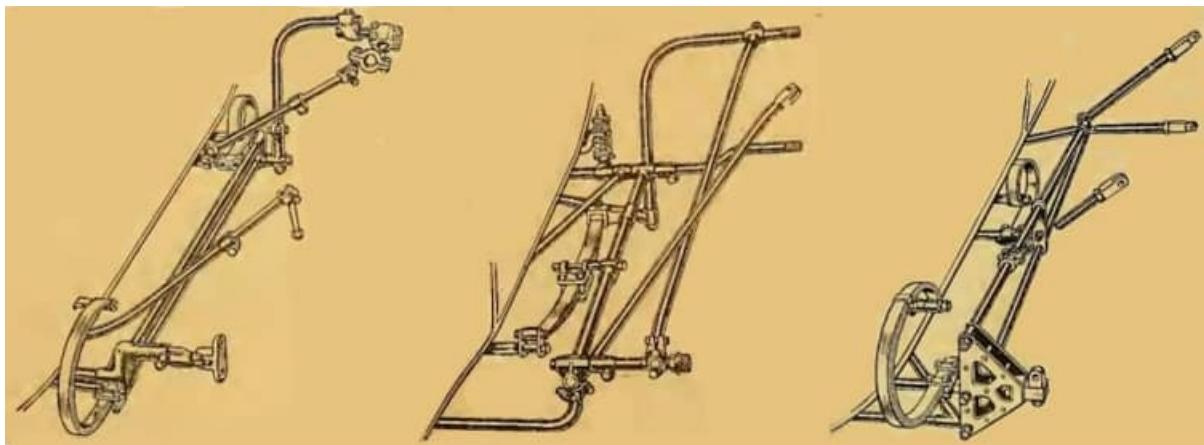
"HUNDREDS OF PEOPLE ASSEMBLED on a recent week-end on the slopes of the well-known Shropshire mountain, the Wrekin, which rises to 1,366ft, to see a 2½hp Velocette three-speed motor cycle, with a Canoelet sidecar and adult passenger, make a non-stop ascent. This was accomplished by G Denley five times in succession, much to the amazement of many motor cyclists, who had come to see it not done, as the gradient in places is 1 in 2½. Several other Velocette riders went over the top, one with 'two up'"



"Up Litton Slack on a 2½hp sidecar: Geo Denley demonstrating, as a result of a challenge, his little Velccette's hill-climbing capacity. He succeeded in climbing this notorious Derbyshire hill with his passenger standing up in the sidecar, proving that no weight was put on the rear wheel."

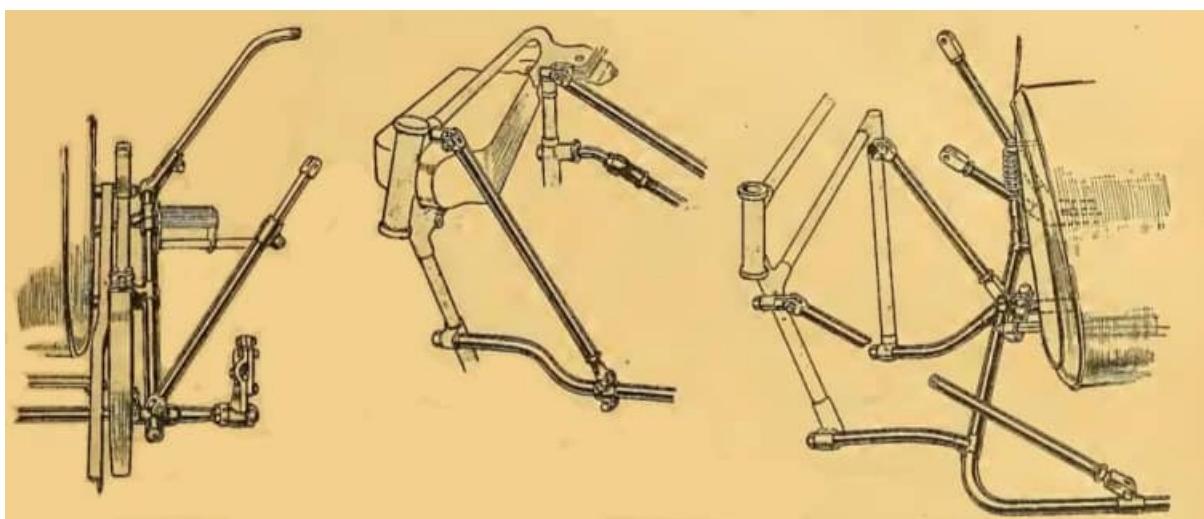
"RETURNING recently to London from a holiday trip to North Wales, an acquaintance of ours was hailed by two apparently able-bodied and intelligent young men and asked if he would repair a puncture in the rear cover of their lightweight machine; they did not 'know much about removing tyres'. He complied with the request, but even now, our friend complains, he is not quite sure whether or not he was imposed upon. This, we are afraid, is not an exceptionally uncommon occurrence on the road nowadays, when the motor cycle is adopted by so many who know little more than the effects of control lever movement. For the motor cycle has passed that stage when it was necessary to have a fairly extensive technical knowledge before venturing far afield. At the same time, punctures, broken belts, and the like are still a source of potential trouble to all; and we do not think it too much to ask that every rider should be equipped for, and capable of effecting, such minor repairs himself, without straining the unequalled fraternity of the road that at present exists between all good motor cyclists."

"SIDECAR ATTACHMENTS—DEDUCTIONS, criticisms, and suggestions drawn from a review of current methods of securing sidecar chassis to motor cycles: Fear and trembling characterise the attitude in which one approaches the subject specified in this title. Only in the matter of tyre and rim sizes is there so much lack of unanimity and demonstration of the workings of the illogical mind; and when, in addition to this, we run up against flagrant negations of accepted mechanical practice, the pen is taken up in the spiritless fashion of one who knows the meaning of the phrase regarding the stepping in of fools where the angels fear to tread...one manufacturer will adopt a more or less 'ideal' straight-tube triangulated system, while another will



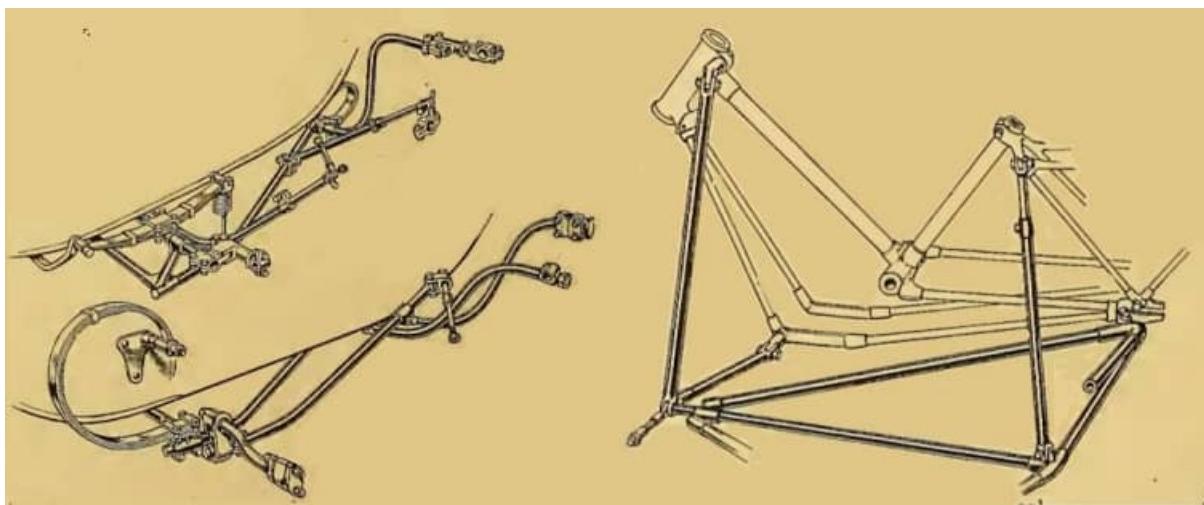
Sidecar chassis: Millford, Rex and UAC.

purposely bend every one of his connecting tubes. The former looks askance at the product of the latter, dubbing it 'unscientific', while the latter justifies his curved tubes by saying that they eliminate breakages, thanks to the spring and 'whip' which they permit...there are many sidecars connected to machines by what, to the mechanical mind, are masses of contorted tubing applied in an unthinking manner yet, strange to say, some of these are amongst the most successful on the road, and give a minimum of trouble, and are the cause of no serious frame breakages...it



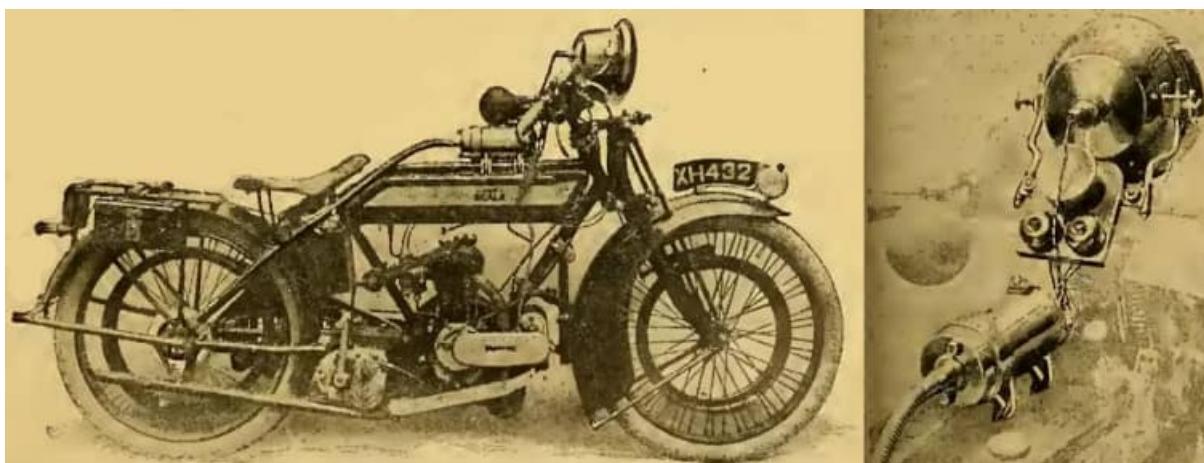
Sidecar chassis: Rudge, Clyno and Matchless.

seems that the ideal is reached, so far as rigid-framed machines are concerned, if a certain amount of flexibility is permitted between the cycle frame and the sidecar chassis. Where spring-framed machines are used, however, or where a spring wheel sidecar is fitted on a rigid machine, the connections need to be stiff and strong...Where joints of the usual yoke and spigot variety are employed the jaws of the yoke should be arranged to take the spigot vertically and, preferably, should not be locked tightly with the yoke-end bolt. Chain-stay attachments clipped (not too tightly) to a round section tube are infinitely preferable to a rigid connection brazed or screwed horizontally into the cycle fork-end, for the latter is a potential source of frame trouble. Yet, with extraordinary perversity, those who are responsible for the production of sidecar machines are so imbued with the fetish of integral sidecar attachments that they frequently overlook the stresses involved and the most suitable method of mitigating their ill-effect." **Wharfedale.**



Sidecar chassis: Sheffield Henderson, Canolet and Scott.

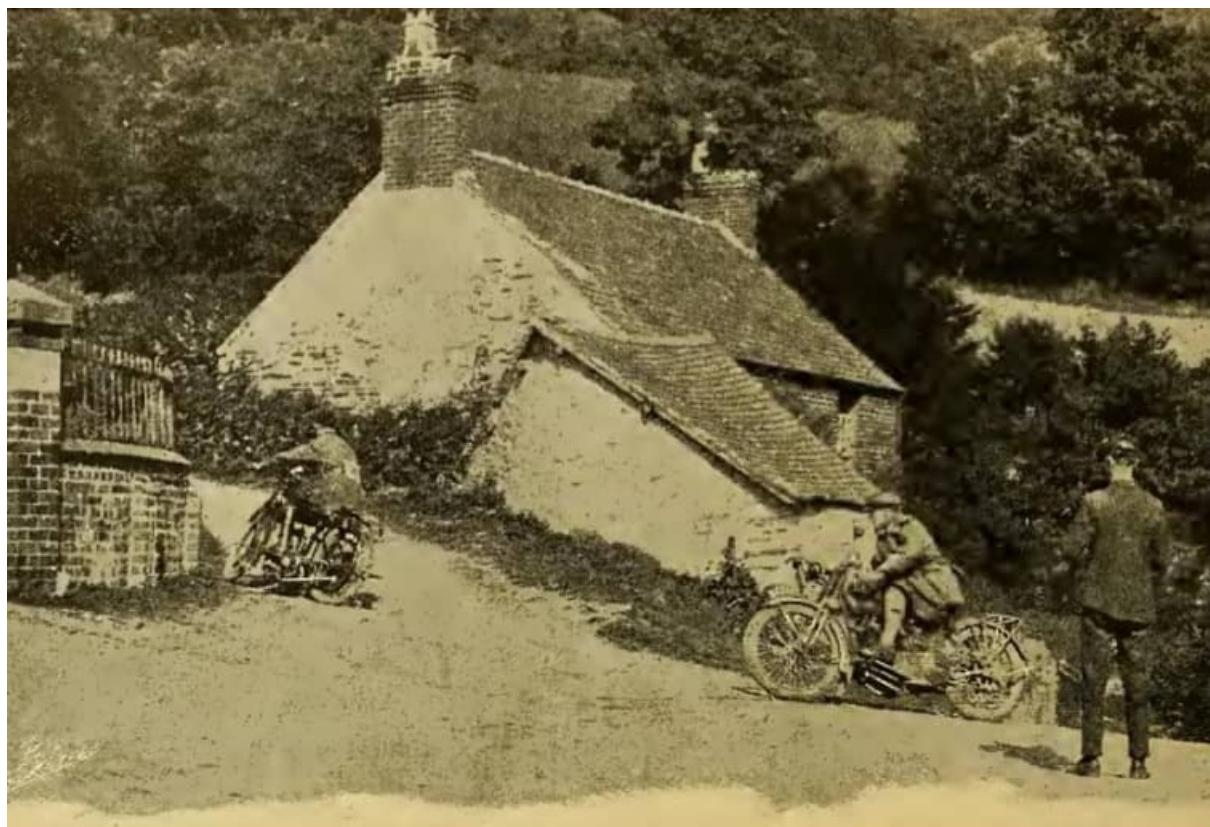
"A DIFFICULTY OFTEN EXPERIENCED in equipping machines with dynamo lighting is the arrangement of a suitable drive to the generator, if such a fitting has not already been provided for in the original layout by the designer of the power unit...to meet this difficulty the Wattalite dynamo and transmission, by means of flexible shaft and gearing from the back wheel, has been evolved, and it appears to be quite practical. A gear wheel is attached to the spokes of the rear wheel, while the pinion on the flexible shaft is attached to the offside rear fork of the machine. The wheels are enclosed, so that the drive is adequately protected from mud and grit, and the actual dynamo is driven by means of a speedometer pattern cable having an ample margin of strength. The generator, which is designed to give an output of 16 watts (4 volts 4 amps), is situated on the top tube."



"Flexible shaft and speedometer type gearing on the back wheel for the drive of a dynamo lighting set. (Right) Top tube mounting of the rear wheel-driven Wattalite dynamo; switch gear and charging ammeter are mounted on the handle-bars."

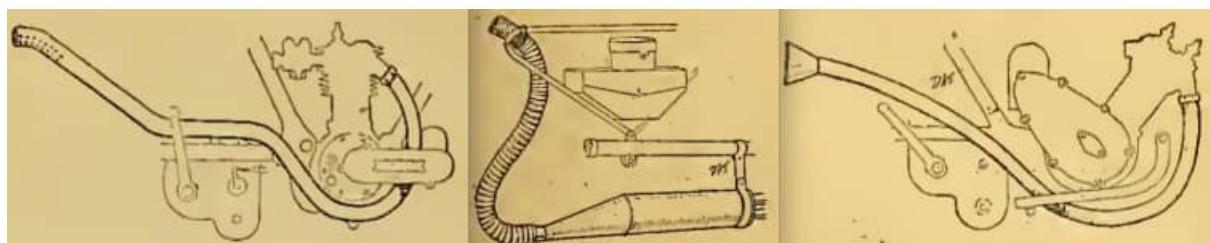
"THE LIVERPOOL MC'S RELIANCE CUP event is usually held rather late in the year, when the weather is bad; and the contest has a reputation which it shares with the city of Manchester, 'always raining'. With such well-known hills as Alt-y-Bady and Conquering Hero, not to mention the new finds at Ffrith (the soi-distant Horsman's Ladder) and Bodfari Station, a trial which included seven watersplashes, five other observed hills, one hairpin, and half its mileage over rough lanes of barely sidecar width, would be the height of difficulty. As it was, the sun shone

clearly all day, and the rain of the previous night had left no trace; therefore, the difficult became easy—



"The hairpin at the foot oF Conquering Hero. G Dance (3½hp Sunbeam) after overtaking SV Banner (7-9hp Harley-Davidson) on the bend."

so to speak, and with qualifications—and a high percentage of the fifty-one starters finished to time...it was evident that much nervousness existed as to the watersplashes. Magneto's were plastered with grease; indeed GW Shepherd (8hp Excelsior sc) had about 2lb of it smeared round the contact breaker and the brush holders, while the Norton contingent favoured sponge bags, and quite a number of special silencing arrangements were fitted. WS Maldon (8hp Zenith) had a flexible extension pipe from the silencer outlet to the carrier top, as had SH Beard (6hp Excelsior sc), and one or two of the Sunbeam riders. Miss F Cottle (4hp Triumph) not only had a permanent exhaust pipe directed high up behind the machine, but beside the tank had a Stauffer screw-greaser with a pipe down to the flanges of the



"Extended upturned exhaust pipe on Miss Cottle's 4hp Triumph to obviate back pressure in the watersplashes. A flexible extension pipe fitted to WS Madon's 8hp Zenith silencer. W Edwards's exhaust (4hp Powell). A spare plug was also carried in the exhaust valve cap."

countershaft pulley. This apparatus was charged with belt dressing, so that the effects of the watersplashes could be counteracted. As it transpired, all these elaborate precautions were

unnecessary, for there was scarcely a splash with enough water in it to wet the rims of the machines...At Cwmman the fifth and most difficult watersplash was encountered; it was not deep, but the flow of the stream was treacherous, and caused the solo men to flounder about, the most surprising thing being Eric Williams's failure, for his Sunbeam stopped just as he reached the far side...One wonders if the committee had any consideration for the fact that Alt-y-Bady was to be climbed almost immediately after lunch, when they selected a temperance establishment for that meal; neither courage nor comfort was to be had, in liquid form at any rate...Ovations were earned by Miss Cottle (4hp Triumph) and Miss Pickering (4hp Powell), who handled their machines in masterly fashion. Westwood Wills (4hp Powell), all out to win his 'middle gear' sixpenny sweepstake,



"Solo machines made light work of Alt-v-Bady. A Hewitson (3½hp Scott) making a sure and steady ascent."

almost reached the summit before changing down to low...Bennett (3½hp Sunbeam) evidently thought he was still in the Grand Prix, and his stable companion Dance made a similarly fast ascent, of the 'rough' order—leaping into the air and righting his machine in a wonderful fashion, entirely calculated to deter the, average non-motor cyclist from purchasing such a terrifically dangerous vehicle. In reliability trials riding it is a pity that makers cannot persuade some of their men, at any rate, to show the public just how docile and gentle an ascent can be made—without heroics, without perspiration...GW Shepherd's lady passenger sat on the carrier of his 8hp Excelsior sidecar, bumping violently—admittedly almost a necessary thing to do on such a hill, but, again, neither good propaganda nor particularly pleasing to see...On the whole, the trial was a thoroughly sporting one. The weather conditions favoured the competitors to a remarkable degree, and the organisation, except at the lunch stop, was excellent."

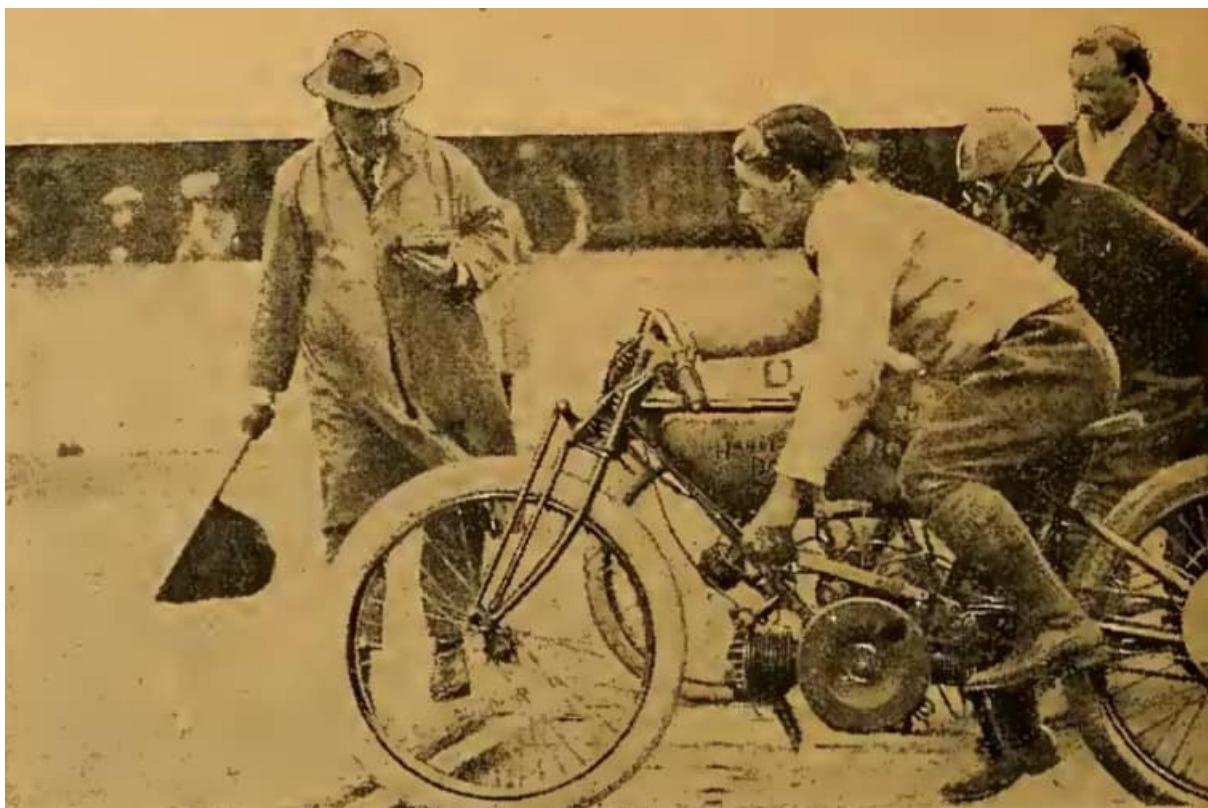


"The watersplash at Cwmmau. S Ollerhead (3½hp Norton) crossing the worst splash of the seven In the trial."

"SIR,—I RECENTLY RODE A MOTOR CYCLE and sidecar from London to York, via Leicester, Derby, Sheffield, and Doncaster...from Sheffield to Doncaster and Ferrybridge, and thence to Tadcaster, there are large portions which are little short of murderous. Three months ago parts were under repair; now those parts alone stand out like oases along a real Via Dolorosa. Picture papers have just been showing some sort of queer new toy on which you stand and bounce heavenwards. Take a cycle from Doncaster to Tadcaster, and you have learned all there is to know about bouncing. Some of the pot-holes are like young bathing-pools, though here and there a cynical road-man was amusing himself by converting a hole into a mound. In one place for many yards you had to pass over a carpet of raw earth and jagged flints, the road having been riven asunder and left to repent of its sins. In one or two places there are short stretches of perfect surface. One supposes these are put in as a temptation to the unwary. Whether the wicked are punished in this world or another is open to discussion, perhaps, but I hope this dream I had comes true: for I beheld the Ultimate Man Concerned stand on trial before a demoniac court, and the judge put on the black cap; amid the shudders of the spectators, he was condemned to ride for all eternity to and fro over the road from Sheffield to York. And, sir, I may tell you that the Wandering Jew and the Flying Dutchman will be kings to that UMC.

(Mrs) Constance H Linney."

"FOR RIDING FOR A DISTANCE of from fifty to sixty yards on the footpath, a Southport motor cyclist has been fined 40s. The defendant alleged that the road was so bad that the last time he traversed it, it cost him 17s 6d for repairs."



"Awaiting the word to start in the 'Winners' Handicap'—TR Allchin, on a stripped Sports Harley, is in the foreground." The event was the year's sixth BMCRC meeting at Brooklands; Allchin won the 1,000cc three-lap handicap at 68.9mph.

"THE MOTOR CYCLE IS THE LANDSMAN'S yacht—cruising craft or a racer, as the case may be, and it is rather surprising that the adoption of colours, a la yacht clubs, has not become universal. Many clubs have adopted a badge for the handle-bar or the front number plate, but that represents something more to clean and to catch the dust. Other clubs—very few, indeed—have their flags. Among these are the Public Schools MCC, the Worcester & DMCC, the Glasgow MCC, and the Edinburgh & DMC...The Glasgow club went so far as to have a pennant designed by Mr Graham Johnston, herald painter to the Lyon Court...The device may be taken to symbolise Scottish motoring with caution. In the quaint language of heralds, the pennant is blazoned: azure, on a saltire argent a triangle gules voided of the second...it is usually carried on a pole on the front number plate. Favoured members may have their pennant embroidered by the lady passenger. The president of the club is entitled to display the flag in rectangular form, 4x5in, and a method of distinguishing other officials of the club, say, by double-tailed pennons, could be devised. Yacht clubs have their burgees, and the Caravan Club its pennant; motor cycle clubs should also display their colours...Mr J Norman Longfield, chairman of the Yorkshire Centre ACU, writes: 'At the last Board meeting of the Yorkshire Centre of the Auto-Cycle Union, it was unanimously decided that each club affiliated to the union in Yorkshire should have its own registered club colours. The club secretaries were instructed to send in to a committee appointed by the Board an application for the colours his club desire. The colours allotted to a club may be used in any way that club may desire, but it is considered that the great majority will carry their colours in the form of a small flag or pennant.'"



"The red and white pennant of the Public Schools MCC. Yellow and black are the Worcester &DMCC colours. The black and white pennant of the Edinburgh &DMCC. The white cross of St. Andrew on a blue field adopted by the Glasgow MCC."

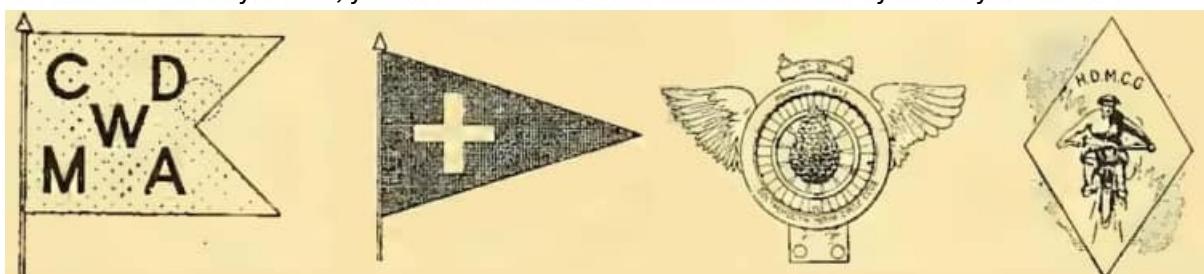
A FEW WEEKS LATER THE BLUE 'UN reported: "We have received many letters from club secretaries, in which they state that the general adoption of the idea is supported by their members. On this page we are able to give illustrations of a dozen more club flags, and next year, no doubt, many more clubs will adopt the flag scheme. Some clubs have badges in enamels to match the flags."



"Black and gold have been chosen by the Builth Wells MCC; The Sheffield and Hallamshire MC also favours black and gold; Peterborough MCC, red and blue, with white lettering; Folkestone &DMCC, dark blue with white device; Taunton &DMC&LCC, red and white with black lettering; Okehampton MCC, another unlettered flag in red and black; the centre of the Wallington club's badge is a black and white check."



"The Wallington &DMCC&LCC colours are black and white, without lettering; Marlow &DMCC, cardinal red with yellow letters; Rotterdam MCC (Holland), green and white, with black lettering; Ipswich &DMCC, red ground and yellow letters; Claret edged with royal blue are the colours of the Solihull Old Boys MCC; yellow and black are the colours chosen by the Royal Dutch MC."



"Coventry District Works Motor Association, yellow ground with black spots and lettering; Neath &DMCC, black with Maltese cross in white; Bournemouth &DMC&LCC, Harrow &DMCC, club badge."

"TWO CONSISTENT RECORD BREAKERS, RN Judd and CF Temple, were very busy at Brooklands on Monday and Tuesday of last week, and both were successful, the former on a 3½hp Norton breaking two, and the latter on a 7-9hp Harley-Davidson, with and without sidecar, beating eight in all, and, incidentally, raising the British flying mile to 100mph (exactly) for the first time."

IXION WAXED WHIMSICAL OVER SIDESTANDS: "I know now what the lady novelists mean when they describe the ineffable pride with which the young papa surveys his first offspring as the nurse lays it in his timid arms. For have I not actually received a sample prop stand—the first of many in preparation—after years of clamouring for this useful accessory. It weighs 2lb 4oz. Mechanically, it is quite simple—a telescopic leg, horizontally hinged to a split lug, which is bolted to the near side chain stay of the bicycle. A collar on the head of the leg contains three notches, any of which can be locked by a tiny spring pedal. One notch is located so as to hold the leg vertically upwards out of the way; the remaining notches give you a choice of angles in the active position. The only criticism which I can make is that dirt and dust may cause the hinge and the pedal to work stiffly, and that I rather fancy certain alternative designs may weigh less. Meanwhile, I am using the stand with considerable gusto." Within weeks, Ixion reported: "The deluge has started, and I shall soon be searching in vain for naked bits of tube on my 'bus to which to affix fresh prop stands. The machine absolutely bristles with them, and I can never take another toss, for, whichever way it fell, one of them would support it. The 2lb 4oz Taylor stand was the first to go on, and proved a great blessing on multi-stop rides. It is not perfect; it weighs too much; it takes two hands—or a toe and a hand—to operate it, but it is far better than the ordinary rear stand. I am now testing a sample which arrived anonymously, with an indecipherable post-mark, and scales no more than 6oz, being designed to fit on to a footrest or footboard. Moreover, you just knock it down with your toe, as it is locked up or down by a short coil spring acting on each side of a dead centre like the Rudge rear stand. I fancy everybody will want a prop stand of some kind next year." Sadly, the honeymoon didn't last long: "Don't tumble over yourselves, dear readers, to buy up the prop stands of which I have written. Doubtless some of them will be OK by show time, but as yet most of them are in the experimental condition. I was adoring one of mine the other day when its leg suddenly wilted, and down came my beloved jigger on its hip bone with an awful crash, to the great glee of the pals whom I had summoned to do poojah to the new accessory. It transpired during the post mortem that the carcase of the beastie was made of brass, to which the steel tube leg was affixed by a small pin; the pin bit through the brass as if it were Cheddar cheese. I am now bolting on two more, after testing them with a file to see if there is any brass about them; but I must admit that I stand near the machine when they are in action, with my arms out-stretched like the hero in a film serial when the villain is terrifying the heroine into diving out of a skyscraper fifteenth storey window. Brass! Ugh!"

THE GREAT MAN'S ATTENTION WAS also caught by reverse gears: "A new gear box which the Sturmey-Archer people are bringing towards the production point will embody three speeds and a reverse, and should prove invaluable to the motor cycle trade. Cycle car folk naturally have the first claim on it, as it will save them having to carry their tails round when they want to reverse in a narrow lane; sales managers always say that it is child's play to lift a cycle car round, but personally I would as soon drag a fainting woman out of the gallery of a theatre, for most of the grips which a cycle car tail provides are extremely sharp, and liberally smeared with dirt and oil. But I suppose the sidecar people will also be after the new gear box, and that our 1922 motor cycle gymkhanas will list a novelty on the programme—racing backwards on sidecars."

"ALTHOUGH SOMEWHAT MARRED BY stormy weather, the first annual inter-club rally of the North London MCC, held at Hendon on Saturday, was a decided success. The chief award, the challenge shield presented by Mr AJF Beaurain, was gained by the Connaught MCC, which attained the highest figure of merit (ie, percentage of members present multiplied by mileage from club headquarters). A strong wind, unfortunately, nullified the facilities offered to those present for flights at a reduced rate, and although several flights were enjoyed, chief interest

centred on the minor competitions. Mrs Uhde, of the Surbiton & DMCC, gained the special prize (a Vici

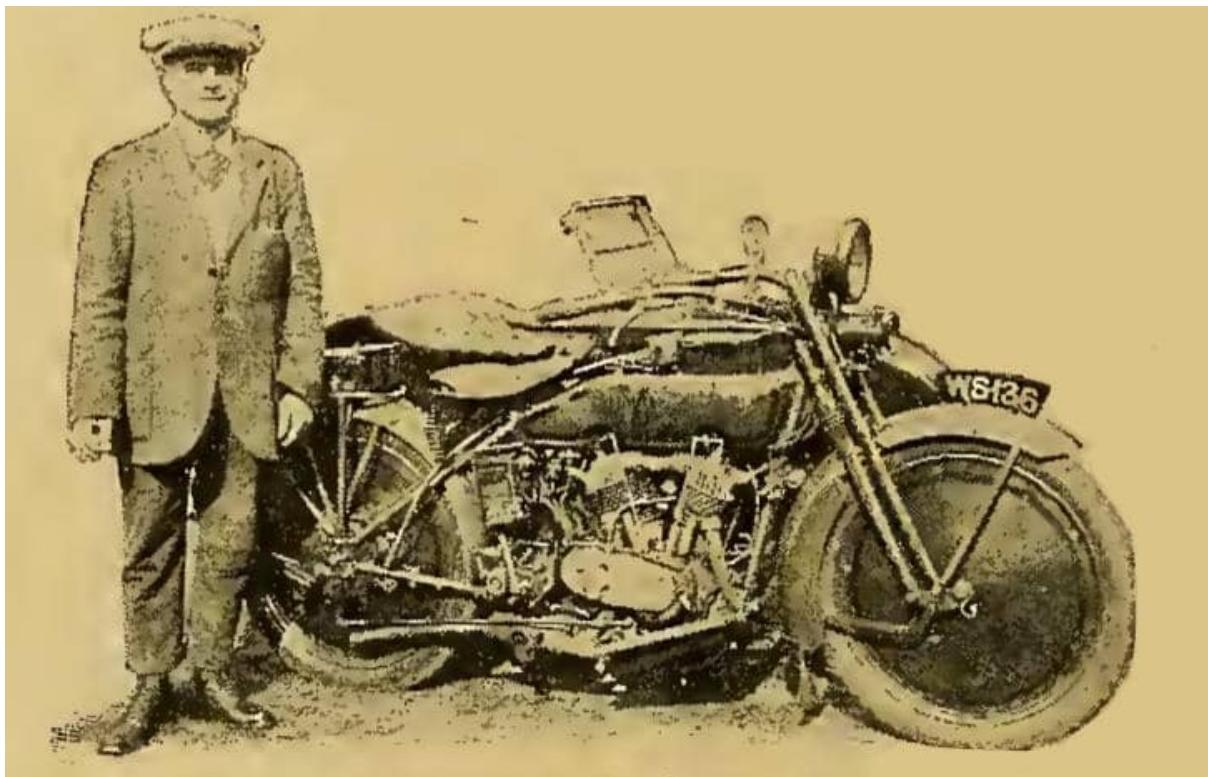


"General view of some of the machines at the North London MCC's Rally, parked in Hendon aerodrome."

carburetter) for having ridden the greatest distance to the meet, whilst Walter Scott's expenditure of energy in polishing his machine was awarded by the gift of an Elite motor cycle cover. Both of these prizes were presented by the manufacturers. Two 'gymkhana' events had for their awards copies of *Motor Cycles and How to Manage Them* and *Tracing Troubles* (presented by this journal; but on consideration it would seem that the former prize was almost too cruelly appropriate! EW Cholcroft's AJS sidecar won the prize of a Service motor cycle watch for having the most ingenious 'gadget'. His machine was fitted with several detail modifications, particularly to the lubricating system, and to the air intake of the carburetter. There is little doubt that this rally will become a most popular annual event."



"A Sunbeam sidecar driver successfully 'ringing' one of the posts in the 'Houp-la' competition at the North London MCC's Rally at Hendon last Saturday."

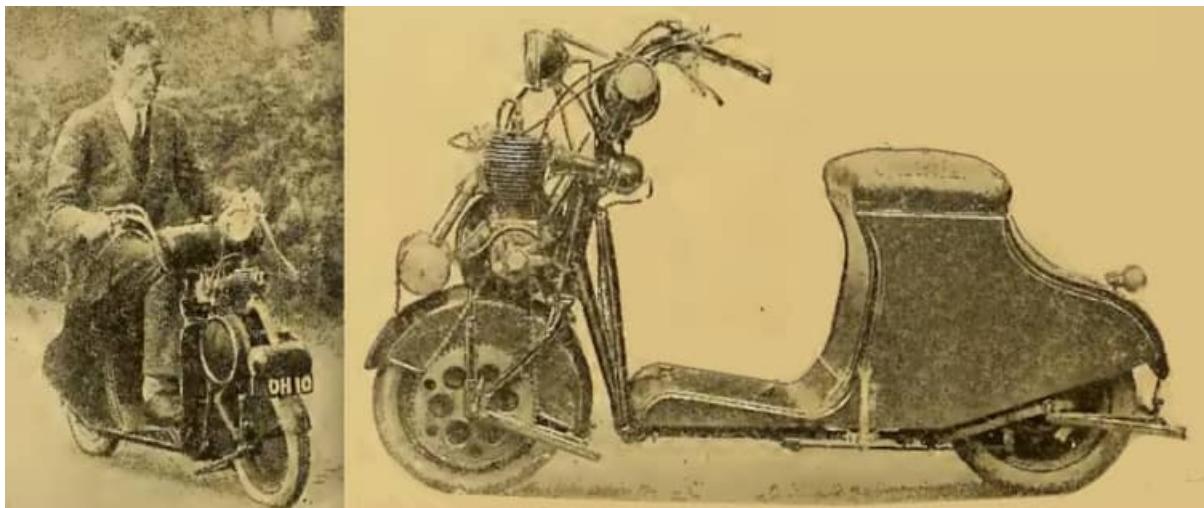


"At least nine motor cyclists out of every ten will deplore the slackness of any fellow rider who neglects his mount. To find a winner for the best kept machine at any rally is often a difficult task. Walter Scott, shown above with his Harley-Davidson, was the winner in this respect at Hendon."



Meanwhile in Germany the ADAC staged its annual treffen.

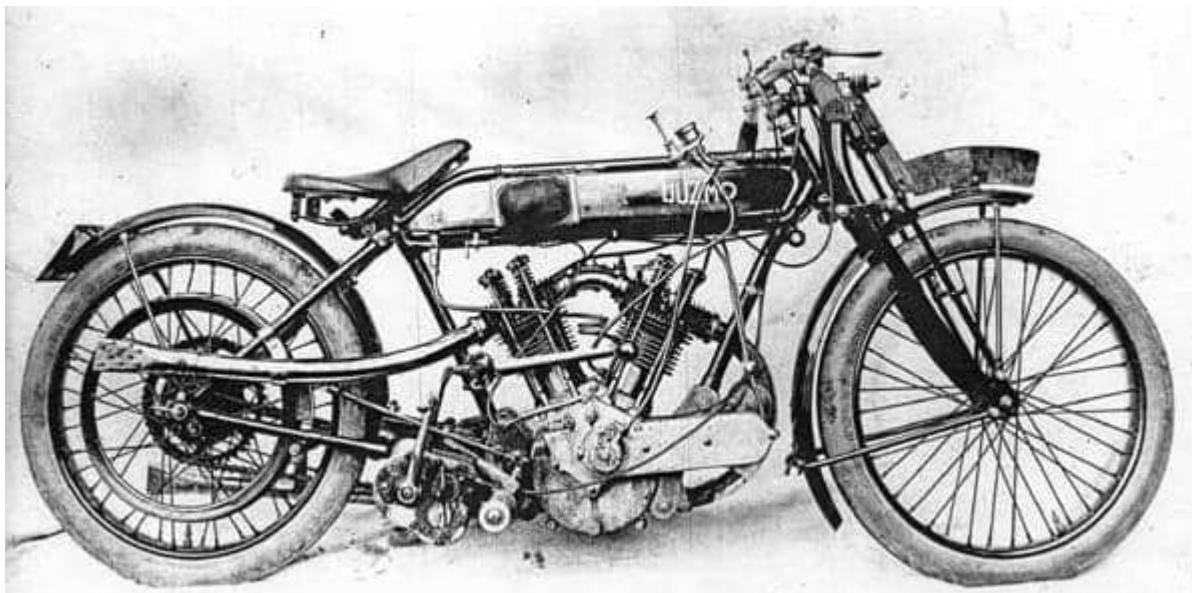
"IF A THAMES PUNT WERE OFFERED to a North Canadian trapper there is no doubt that he would laugh it to scorn, yet a punt has certain advantages over the birch-bark canoe, just as the latter for certain purposes is superior to the punt. One could go on indefinitely with such examples of special means for special needs, but the one given above suffices to illustrate the point we wish to emphasise in connection with the Autoglider. It is not exactly a motor cycle, yet it belongs to that category it is not a scooter, although by most people it is regarded as such. It is in one of the sub-divisions, just as the canoe and the punt come into the general category of boats, and, like either of the types of watercraft, it has a place in the world of transportation. For a considerable period during the summer we had one of these machines in use, and at the outset we made a mistake which approximated to offering a punt to a Canadian woodsman—we offered it to a sporting member of the staff, whose ideals cause him to eschew such refinements as spring frames and small two-stroke engines. He laughed at it. Our next offer was to a very tall, very dignified, and very sensitive member of the staff, who continually complains that all motor cycles are built for dwarfs. It was refused with indignation after a private trial in view of a grinning office boy, who, incidentally, half expected that it would be handed to him. (We more than suspect that he had completely mastered its control during a luncheon hour.) Now it happened that one short-limbed member of the staff had two peculiarities; one was a penchant for perfectly-creased trousers, and the other a long-abiding love for a motor cycle with a very dirty engine. He was thus prevented from riding to the office unless in motor cycling attire. He did not wait to be asked if he would use the Autoglider. He put in his claim simultaneously with that of the Editor's lady private secretary, who fell in love with the polished mahogany bodywork at sight. During the Autoglider's stay in Coventry it was used by every member of the staff and by others. Some rode it once, others perhaps twice—when they were in a hurry and their own machine was not available—and quite a number used it because they really liked it. It was borrowed for week-ends by riders of both sexes; it was used on shopping excursions, it went on a short tour, and one early morning it was the victor in a private match between an Autoglider enthusiast and the owner of another machine of a similar type. To summarise the opinions of many riders, we have had to eliminate the views of those who regard the motor cycle purely as an accessory to sport. The Autoglider was designed to meet specific requirements, and these needs are fulfilled. It is extremely easy to ride; one pushes off, drops the compression release lever, and the engine fires, the clutch lever is raised, and the machine comes to a standstill while the rider makes himself or herself (usually the latter) comfortable. The Autoglider's name has not been derived from the manner in which the machine glides off on the clutch; the full meaning of its name comes home to the rider when once under way. In the world of wheels there is nothing that gives quite the same sensation as the Autoglider. Its spring frame functions perfectly, while, on a really bad road, a second unique sensation is



The Autoglider came with a 2½hp 292cc Villiers or 269cc Union 2¾hp two stroke. Claimed top speed was 47mph though a racing version was said to do 50mph. Suspension comprised laminated steel springs; wheels were 16×22½in.

experienced, and may be likened to a canter on a well-trained horse. At no time does one feel road shocks, and as for the speed—well, if it were not so easy to control, one would almost say it was too fast. There is no doubt that this seat-type Autoglider is a great improvement on the seatless type. The seat considerably extends its range of action. We once covered forty miles at over 20mph on a stand-up model, and found it somewhat fatiguing—in fact, it was only the excellent springing that made the achievement possible at all. We hesitate before criticising one point which seemed a disadvantage. It did not prove so easy to push about as a motor cycle; but this is a motor cyclist's view. In contradiction to this we ought to mention that a lady who made the same complaint regarding a lightweight motor bicycle found no difficulty in handling the Autoglider, but found a disadvantage in the fact that it could not be wheeled directly over the kerb. This is due to the small wheels and the weight of the engine at the front. The box under the seat is a very useful item; especially does this appeal when shopping. In this receptacle the tool roll, a spare tube, and repair outfit are always at hand without having to undo a number of straps. A spare can of oil can also be carried—an advantage when it is remembered that on filling up at a garage one cannot always buy a gill of oil to mix with the petrol. There is still room for small parcels. The price with clutch is £65, while several other models are marketed from £40. The manufacturers are Autoglider Ltd, Birmingham."

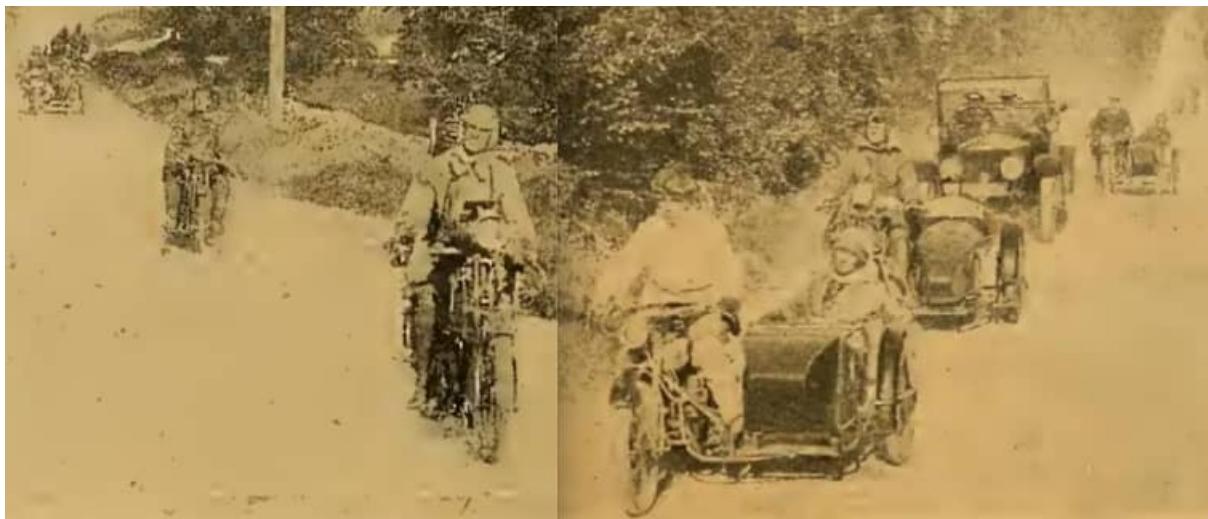
"IN PLACING THE NEW 1,000cc twin Duzmo on the market, the manufacturers are making a direct appeal to the sporting section of riders to whom power, speed, and flexibility are great attractions. It has often been stated that this section of the public has no wide choice of British machines; thus the new Duzmo will be an attractive addition to the high-powered solo class. The cylinders closely resemble that of the single-cylinder model which competed in the ACU Six Days Trials. The finish of the engine is excellent, and the appearance most attractive...Transmission is by chain throughout, a Sturmey-Archer three-speed gear providing the necessary change of ratios. Rear braking is carried out by means of a shoe operating on a dummy belt rim, and a Webb internal brake is incorporated in the front wheel. Wide petrol tank, straight handle-bars, and narrow mudguards provide a very sporting appearance to the machine; though, in the case of the touring model, ample mudguards are provided and it has an expansion chamber of generous dimensions...Whether the new Duzmo will succeed in attaining a 100mph gait on the track or not, its performance in competitions will be watched with interest."



"A new sporting model Duzmo, fitted with an 8hp ohv twin engine and Sturmey-Archer three-speed gear."



"THE FOURTH INTERNATIONAL TEAM TRIAL between Holland and Great Britain is now an event of the past. This year held in England, the event has afforded motor cyclists of this country an opportunity to return to a party of Dutch riders the hospitality extended to the British team, in the 1920 trial in Holland. Nothing but good can accrue from such events would that there were more of them. Not only are friendships made between individuals, but such fraternising helps to cement the friendship of nations. The motor cycles ridden by the British team were exclusively of English manufacture, but the mounts of the visitors represented the productions of Holland, America, Italy, and Great Britain. Thus the trial was of a character in keeping with the spirit that brought the series into being : it was a competition between the chosen riders—and not machines—of two nations which appreciate motor cycling as a sport, as distinct from a pastime and its utilitarian advantages. In arranging the trial in this country, the organisers displayed the characteristic spirit of British sportsmanship. There are no really severe hills in Holland, and to have included some of even the less difficult test-hills would have considerably enhanced the chances of the home team. To all competitors the route was a secret one, and in every way the conditions were such that the visiting team was at no time under a disadvantage through being in a strange country. We feel sure that our guests have returned to Holland agreeing that England is a country well worth the visiting, and that British motor cyclists are ready always to extend to them a hearty welcome...First held in Holland in 1912, the Anglo-Dutch Team Trial is quite unique.



"Between Stratton Station and Cricklade during the morning's run. JN Nieuwenhuys (6hp Simplex), followed by WM Zelle on a sister machine. R Charlesworth (8hp Zenith sc) and W Fels (7-9hp Harley-Davidson). (Right) On main roads in the Cotswolds. JA Newman (6hp ohv Douglas sc), H Boynton (7hp James sc), and GJ Hamer (7-9hp Indian sidecar), followed by other riders in the competition. The touring Rolls-Royce was *not* competing."

It has no parallel in any other event in the motor cycle world. A team of 18 Dutch riders, chosen by their fellow motor cyclists, compete in a reliability trial against a similar team of riders representing Great Britain. In the first event, held in Holland in 1912, the Dutch team won. 1913 saw a British victory in this country. The 1914 trial was abandoned owing to the outbreak of the war, and in the 1920 test in Holland, the Dutch riders were the victors and so secured the original trophy. This year's contest is the first of the second series and has been won by the British team...The Dutch riders are undoubtedly very fast men in a speed burst on average roads; they are also thorough sportsmen, but—they cannot climb hills. There were notable exceptions, of course, but that is the general impression of this highly successful and enjoyable trial, the road (and track) portion of which took place on Monday over an indirect route from Worcester to Brooklands...Breakfast as guests of the Essex MC was followed by an escorted ride to Leamington, and, the Midland Centre, ACU, having taken over the party at Towcester, dinner that night at the Town Hall, Leamington, was provided, right royally, by the latter body. So was luncheon at



"Dutch solo riders on Birdlip. JM Boom (5hp Simplex), who made one of the best performances in the visiting team on this well known main road hill, is on the right, and has just passed H Bieze

(2¾hp Royal Ruby), while in the rear are CL Sprosen (2½hp Connaught) and another of the Dutch team—who found the hill too much for his mount. (Right) An American sidecar on an American machine fitted American fashion, but with an Easting screen. W Van Zyl (7-9hp Harley-Davidson sc) near Cricklade."

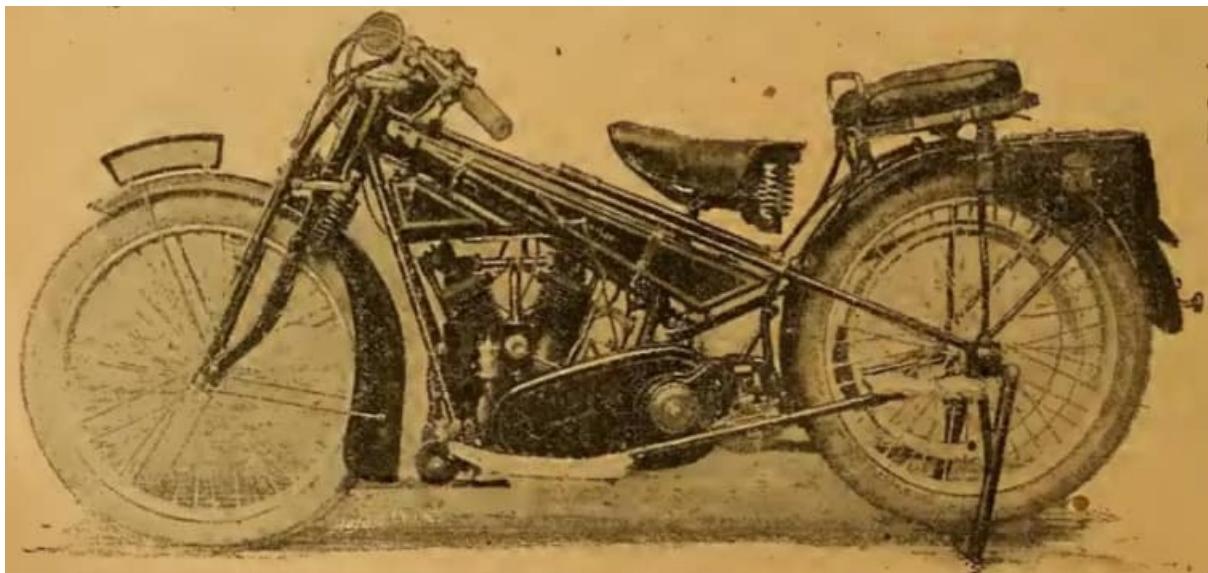
the Shakespeare Hotel, Stratford-on-Avon, where, on Sunday, the visitors had every opportunity of inspecting one of the show places of England. In the afternoon a move was made to Worcester, the Western Centre taking official charge of the Dutch team at Alcester, amid the usual scenes of much enthusiasm. That night a dinner was held at the Guildhall, Worcester, when the competitors of both countries were welcomed by the Earl Beauchamp and the Mayor of Worcester...On Sunday evening, when the competitors were rigging up their official numberplates and filling tanks...many of the Dutch team were observed taking down and cleaning out carburetters, testing tyre valves, and effecting all sorts of back-aching precautionary measures. Excepting, perhaps, G Nott, who changed a tyre on his Matchless outfit, the English team 'stood easy'...Thirty seconds were allowed in which to start up engines from cold, but this proved a generous allowance, and only O Hayes 2¾hp AJS) lost marks on this score; a night in a damp garage had caused a sticky contact breaker...For the first ten miles it was a main road run, then a by-road past Malvern Link Station, more good or fair going through Welland to Holly Bush cross roads,



"Near Wickham. W Pratt (8hp Matchless sidecar), captain of the English trade team. (Right) J vd Werden (7-9hp Indian), followed by Geo Nott (8hp Matchless sidecar), at Stratton Station."

and then, for the first time, a narrow track reminiscent of the usual English reliability trial. This led to the first serious hill, a stony rise, about two hundred yards long, with a maximum grade of 1 in 5, and approached by a sharp left-hand corner. None of the English riders turned a hair; but quite a few of the rival team lost their non-stops. JR Donker (2¾hp Royal Ruby) came to a standstill about half-way up, and seemed surprised, and E Ekker (4hp Bianchi), apparently taking his cue from the man in front, did likewise. Both paddled on to the summit, amid a tuneful chorus of 'konks'. There was a momentary lull, and then three, more, CJH Wolff (2¾hp Royal Ruby), H Bieze (2¾hp Royal Ruby), and—tell it not to Mr Norton!—M van den Jagt (3½hp Norton), simultaneously decided that fifty yards climbing was enough at a time. One of the trio should be able to claim a baulk—which one, it would be difficult to say, for all three had much trouble in getting going again on the grade, meanwhile baulking HR Davies. Indeed the majority of the Dutch competitors suffered from a lack of previous acquaintance of single-figure gradients, and, therefore, had no true idea of the capabilities of their machines. The Simplex riders were noteworthy exceptions, their machines providing quite the surprise of the trial...T Kersten (4hp

Harley-Davidson) missed his first gear change, ran back, fell, pulled his machine upright across the road, and then fell over on his other side...Just to show that Birdlip is a severe hill, EB Ware's Matchless sidecar knocked quite appreciably before second gear was brought into action and then, to confirm it, JA Hanse, on an old 6hp Enfield sidecar, failed in a variety of ways to make a clean climb. His passenger had quite a strenuous time pushing the heavy outfit up. While this was going on, Sam Wright (4½hp Humber sc) passed at speed with a look somewhat akin to amazement



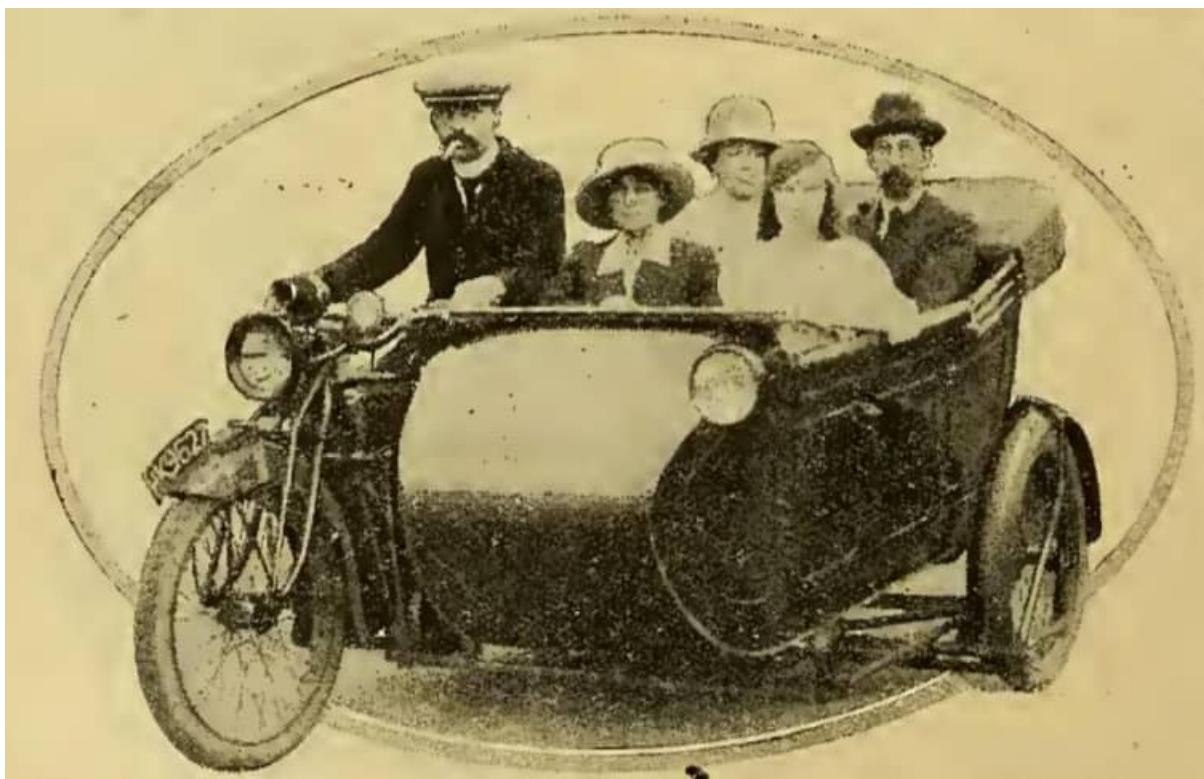
"The latest model of a representative dutch motor cycle. The twin-cylinder Simplex which embodies several well-known British components, including Druid forks, Amac carburetter, and Terry spring saddle. The engine is a MAG of 600cc capacity. Observe the pillion seat constructed as part of the machine, and complete with footrests. 28x3in tyres are fitted."

on his face...FJ Visscher's Indian sidecar was now largely held by wire, while the same rider had had trouble with his engine sprocket...The luncheon arrangements at Newbury were very poor, and must have created a poor impression upon our visitors, which is to be regretted by all who know how well the British team was treated in this respect last year...Unfortunately, one of the Dutch team—H Fels (7-9hp Harley-Davidson sc), the private owners' captain—collided with the Indian lorry on arrival at Brooklands and suffered a dislocated collar-bone. His place was taken by one of the reserves. On arrival at Brooklands, and after filling up with petrol, the competitors proceeded to the fork for the start of the twelve laps (36.2 miles) at speed. The speeds required by the regulations were as follows: 275cc solo and 600cc sidecars, 28mph; 350cc and 500cc solo and 1,000cc sidecars, 35mph; 1,000cc solo, 40mph...The visiting sidecarists created some interest by riding their machines in a bunch and in close order—not a very safe proceeding...J Whalley (3½hp Sunbeam) ran into the paddock during the speed test, but later reappeared; nevertheless, he succeeded in making fastest time, his average speed working out at 48mph. Nott's Matchless sidecar averaged 46mph, while Geoffrey Smith (3½hp Sunbeam) was third at 45.68mph. Excepting the visiting lightweights, the majority of the speeds were over 40mph. After Brooklands, the competitors journeyed to Thames Ditton for the dinner arranged by the ACU and the entertainment provided by the Surbiton MCC at the Vaudeville Club. Here it was announced provisionally that the British team had won with a loss of 52 marks as against 256 marks lost by the Dutch team...Fifteen British contestants gained gold medals, seven silver medals, and one a bronze medal. Of the Dutch team, twelve gained gold medals and eleven silver medals...H Fels, the captain of the Dutch private owners, who met with an accident after

having made a non-stop run, will be awarded a gold medal...On Tuesday, when the Dutch team left for Holland, they had the opportunity of looking over the JAP works at Tottenham, and were subsequently entertained to luncheon by Mr JA Prestwich at the Royal Forest Hotel, Chingford...They prefer powerful twins, a cut-out seems to be a sine qua non, they wear leather coats almost exclusively (black or brown), they affect racing helmets at all times, they prefer pillion riding astride with a hand-rail for support, their sidecars are mostly on the right-hand side, and the louder, the horn, the more they like it."



"The visitors leaving Chingford en route for the boat at Harwich. Mr JA Prestwich, of JAP fame, wishes our departing guests 'good luck'."

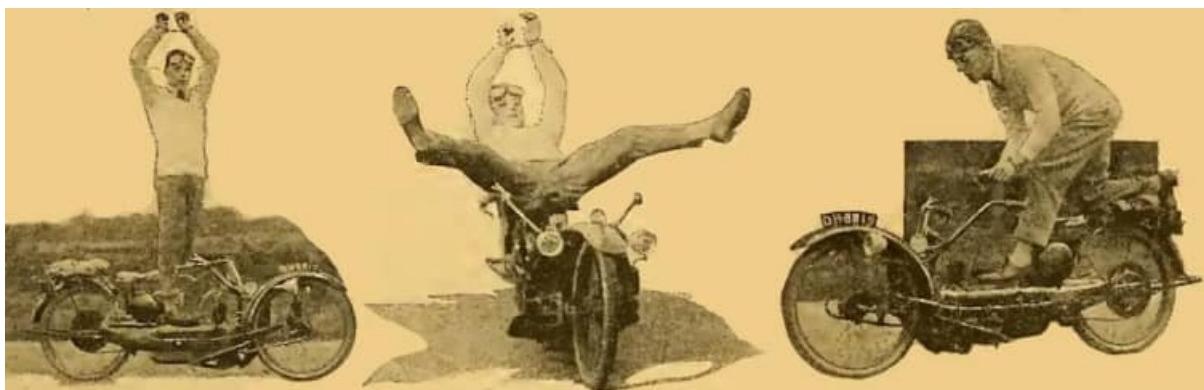


"Is the limit reached? A sidecar char-a-banc: whatever may be said against gigantic sidecars such as that shown above, it cannot be said that Mr McDonald, of Ilford—who made it in his spare time—has not considered the comfort of his passengers. The seating arrangement appears to be equal to the average four-seater light car. The motor cycle is a 7-9hp Indian."

"SIR,—WHY NOT PUT THE MOTOR CYCLE within the reach of the average working man? The deposits asked for by the motor cycle agents are too high. If one could afford to pay £15 down and £3 a month, one could afford to buy right out. If the agents could lower the deposits and extend the payments, say over about twenty months, it would put a motor cycle within the reach of thousands who, like myself, must be content to read about them.

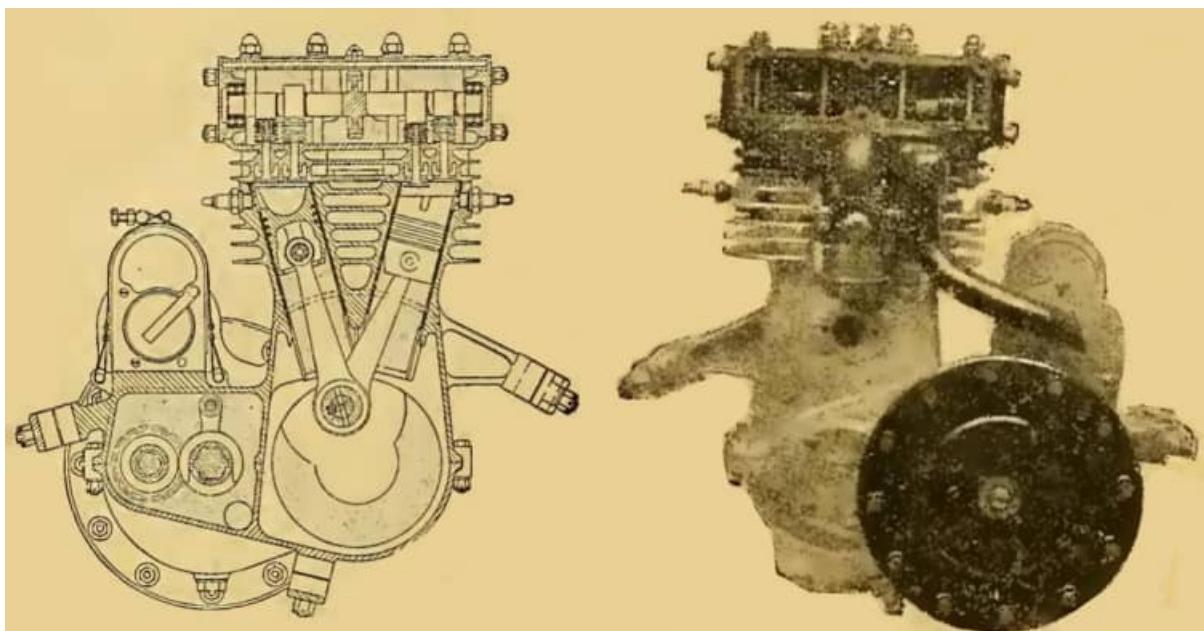
HMD Harvey."

IXION WRITES. ENJOY! "JOURNALISTS are commonly supposed to use ten words where one will do, and this reprehensible habit is accounted for by the fact that the meaner kind of journalist gets his remuneration at space rates. But a breezy letter just to hand from an ACU consul, who also belongs to one of the learned professions, speaks of 'a slight difference of opinion in relative kinetics between my Norton and myself'. Never again will I be content with the simple Saxon word 'crash'. In the last two years the said consul has owned three Nortons (BRS, IOM, and 4hp), a Scott, a Velocette, an ABC, a single-cylinder FN, and a four-cylinder FN. I wonder if any other reader can match this high-class stud? The IOM Norton's mileage for nineteen months is 26,000, and it is still using its original main and con rod bearings."



"Motor cycle trick riding has come to be regarded as the perogative of the cinema, and although trick (pedal) cyclists are almost as common in the average British music hall as low comedians, the acrobat on the self-propelled species is a rarer species. Perhaps fortunately. It's very novelty alone makes the spectacle an interesting one; and it was in this frame of mind that we journeyed out the other day to witness Mr P Aherne give a repertoire of 'stunts' on a Ner-a-Car...Trick riding is, perhaps, not so easy as it looks...it will be noted that the rider is handcuffed."

"HIGH PETROL COSTS AND HEAVY TAXATION have had an important influence on German motor cycle design, as could be plainly seen in the models exhibited at the first Berlin post-war motor show...During the war our late enemies made little or no use of motor cycles, and there was consequently no development of design. With the return to peace conditions, they had to face heavy taxation and particularly high fuel costs, for although home-produced benzole is used to a considerable extent, American petrol is also necessary, and is very costly to the German, whose mark is only worth an American cent. Because of these conditions, the German industry has turned towards the motor-assisted bicycle. In the Kaiserdamm Palace, a huge hall erected on the western suburbs of Berlin specially for motor shows, there is every conceivable variety of motor-assisted bicycle. And the German engineers appear to have taxed their brains to discover in how many different positions they can mount these little engines in an ordinary bicycle frame. They are in



"The Bergmann narrow-angle V-twin with integral gear box. It is constructed of aluminium with

steel liners, cast iron cylinder heads and direct-operated oh valves. (Right) From this view it is difficult to appreciate it is a V-twin."

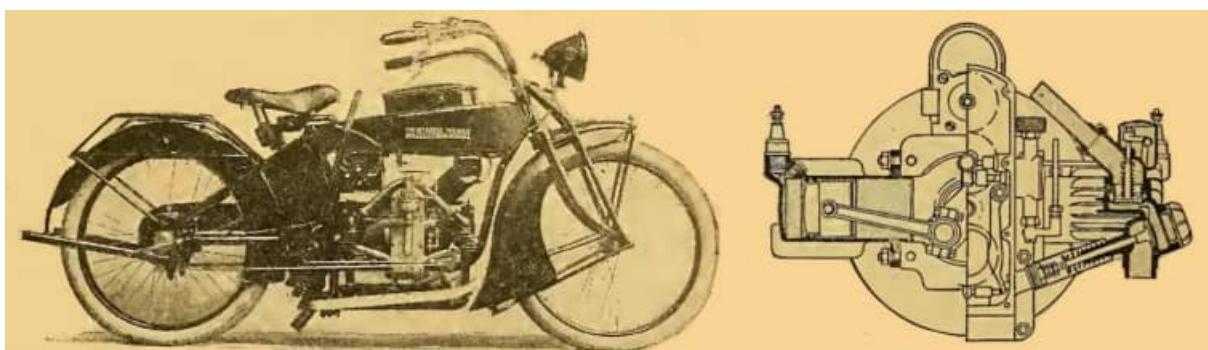
front, behind, on top, at the bottom, placed at all angles, and drive by belt, chain, and friction pulleys. The motor wheel type is favoured by the Opel Co, one of the biggest manufacturers of cars and bicycles, while the numerous other and smaller firms prefer to attach the machine to the bicycle frame. There is only one exception in the LFG, which has a motor wheel trailing behind, and which pushes the bicycle...The German motor cycle industry is very much smaller



The Victoria was among German motor cycles powered by the 493cc flat-twin BMW engine.



than that of England...The two German firms best known outside their own territory in pre-war days—NSU and Wanderer—do not present machines with any new features of design, construction evidently having been taken up just where it was left off in 1914. Some of the really big factories, however, do not despise the motor cycle. As an example, the BMW, a company which developed a huge factory at Munich for the production of aviation engines, is specialising on a flat twin of very up-to-date design, built in various sizes for motor cycles and cycle cars. Labour costs being low in Bavaria, and the value of the mark having shrunk enormously, a unit such as this might be a serious competitor on



"A German flat twin motor cycle, the engine of which closely follows British lines, whilst an American type front fork is fitted—the Deutsche Werke. (Right) The Deutsche flat twin engine, which is very reminiscent of British design."

foreign markets As to the complete machines, there is not very much to be feared from them, for although they have the advantage of low price when placed on a foreign market, they are, generally speaking, not equal to the British product. Another good unit for assemblers is the Bergmann, a V-type with aluminium cylinders, having steel liners and vertical overhead valves directly operated by an overhead camshaft, no gear being used between the cam and the valve stem. This engine has a cast iron detachable head, and is built as a unit with the change-speed

gear. It is the work of one of the most reputed German engineers, and is undoubtedly a fine piece of work. As an example of a good class 500cc machine, with a powerful company behind it, the Deutsche Werke flat twin is interesting. This is produced in the former Government munition factory at Spandau, and is evidently the work of an engineer who has closely studied British design. The engine is a flat twin, recalling the Douglas, with vertical inlet valves, the rocker arms of which are enclosed in a metal box with hinged cover. Without having any startlingly novel features, it is a smart job. The Mars machine, another flat twin, is original by reason of its box frame. The engine, which is one of the most powerful to be found in the show, has no unusual features of design, being a flat twin of 80x95mm (956cc), with horizontal side-by-side



"A single-track runabout—the Mauser—demonstrated at the German motor show. For years our late enemies have endeavoured to produce a motor bicycle having most of the advantages of a car. Observe the small steadyng wheels." (Right) *Mars die Weisse* (White Mars) flat twin with box frame of unusual construction."

valves. All chain drive is used, there being two chains from the countershaft to the hub sprockets, protection for them being afforded by the box frame...This machine is sold with a two-seater sidecar, the seats being in tandem." Mars, of Nurnberg, had been making motor cycles, on and off, since 1903, using Fafnir and Zedel engines. The big flat twin was the only motorcycle engine ever made by the Maybach car and aero engine works at Friedrichshafen. Instead of a kickstart it was started by a car-style crank. "The Victoria machine is fitted with the well-known BMW flat twin of 68x68mm. One of the features of this engine is a crank case forming an oil sump, with pump circulated oil supply to the main and the connecting rod bearings. Contrary to the more general German practice, final drive is by belt, instead of by chain, for both primary and secondary drives [BMW's first foray into motor cycling, the 493cc sv M2B15 proprietary engine was designed by Max Friz. As well as Victoria it was supplied to SMW, Bison, SBD and Helios.]...One of the novelties of the show is the Megola, with five-cylinder rotary engine built in the front wheel...The cylinders, which, naturally, have all their rods connected up to one crank, have a bore of 52mm with a stroke of 60mm (640cc), the general principle of construction being like that of the well-known Gnome aviation engine. A pressed steel open frame is used, with semi-elliptic springs for the rear; this type of construction gives a rather long wheelbase. Instead of the usual saddle there is a comfortable-looking armchair, the back of which is combined with the mudguard over the rear wheel." Designer Fritz Cockerell couldn't be bothered with fripperies like a clutch or gearbox. If the rider couldn't be bothered



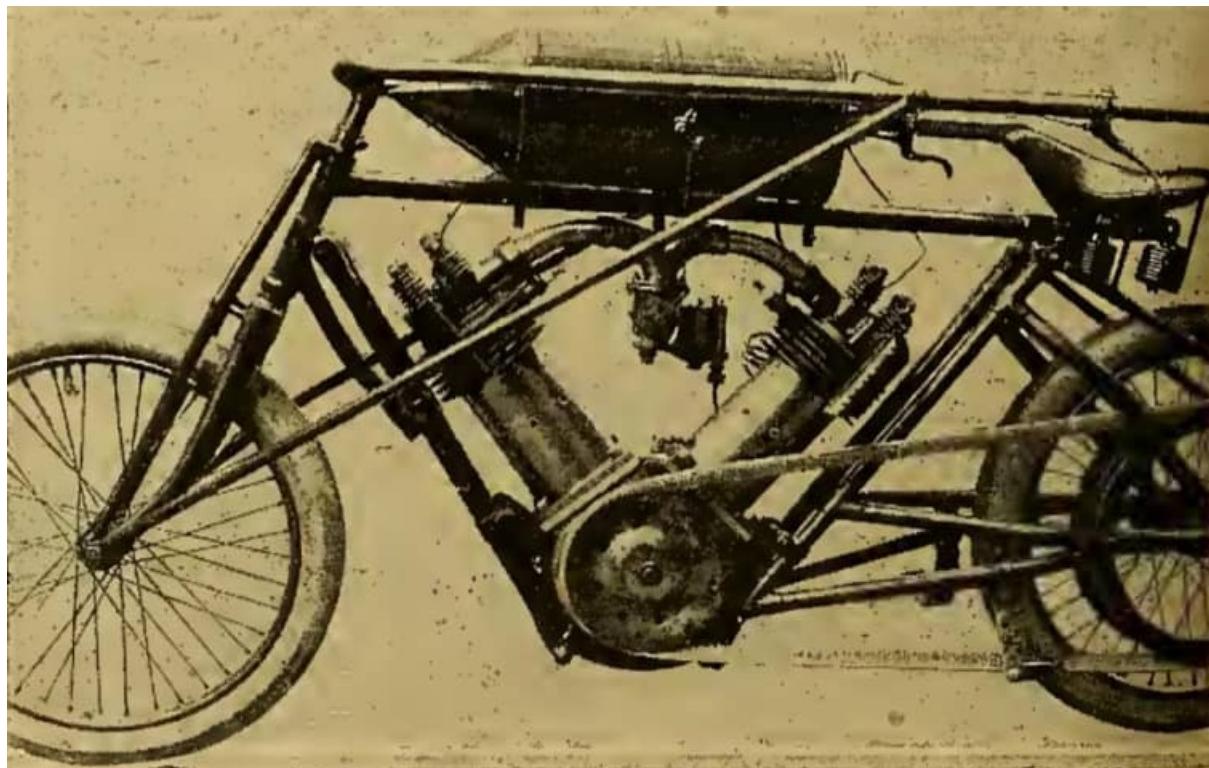
The Megola roadster was rated at 14hp (at 3,000rpm) and was good for 65mph. The stripped down racer was said to do 90.





to bumpstart the beast the recommended technique was “kicking with the heel into the spokes of the front wheel”. The frame was a welded and riveted box section; touring versions had two bucket seats. And yes, there was a pared down competition version which was good for more than 90mph. More than 2,000 Megolas were made. “Another armchair motor cycle is the Lomos, which has an open tubular frame and only 20in wheels. An armchair is mounted in the place of the usual saddle, and immediately below the rider’s legs is a single-cylinder air-cooled two-

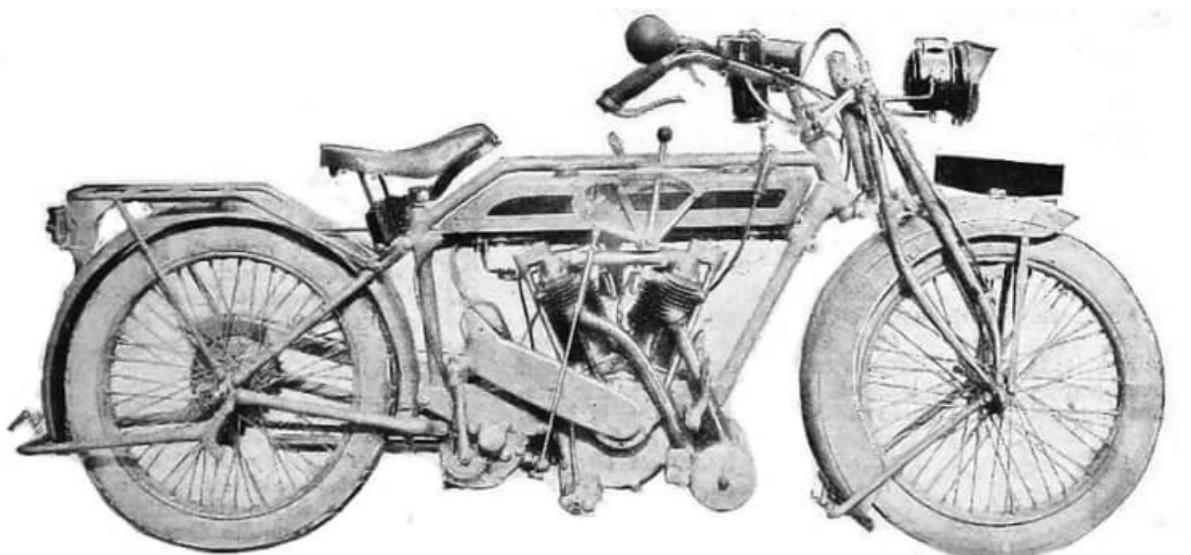
stroke engine of 55x60mm...If our recollections are correct, the Mauser is the revival of an idea put forward in America several years ago. The machine is an ordinary type motor cycle with rather lengthened wheelbase, driven by a BMW engine, and having a car type body built on this frame. There are two seats in tandem, and in addition to the two ordinary wheels a central axle with a small diameter wheel at each end. When standing, or running slowly, the axle can be dropped, allowing the wheels to come in contact with the road, but when running normally the axle is raised, and the machine runs just like an ordinary motor cycle."



"A 20hp motor cycle: This machine, obviously useless except in its particular sphere of work which is cycle pacing on the track, has points of interest, however. Observe the auxiliary exhaust ports, and the enormous pulley, giving a gear ratio of 1 $\frac{3}{4}$ to 1."

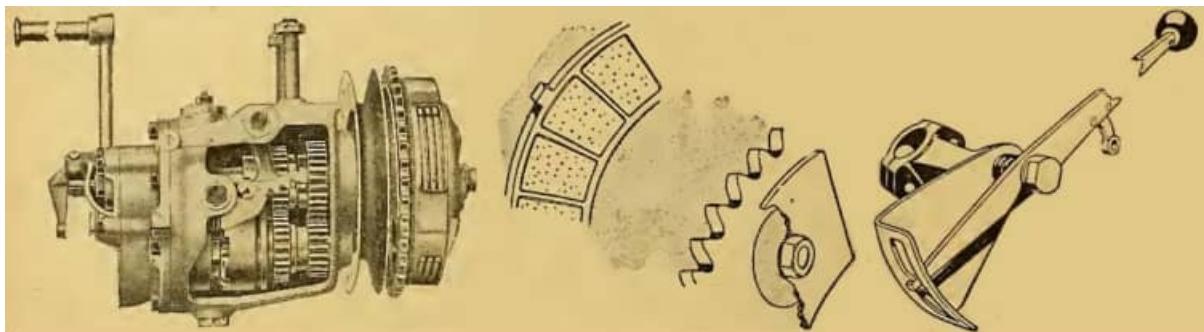
"IT IS GRATIFYING TO NOTE that manufacturers are taking serious notice of the fact that there are very few British big twin machines on the market suitable for solo riding. One of the latest manufacturers to recognise the demand for a powerful, sporting solo machine is the firm of Messrs H Collier and Sons who, in the Model J Matchless, have produced a comfortable and powerful mount, fit for serious touring not only in this country, but overseas, where high power is often necessary through the heaviness of the roads. The engine used is either a 7hp MAG (82x94mm=996cc) or an 8hp JAP (85.5x85mm=976cc). The frame is a modification of that supplied to the sidecar model, the rear portion being rigid. The transmission is by chain, the front chain being totally enclosed, while the rear chain is protected by means of a guard. So far as the gear box is concerned, this is identical with the sidecar model, and the arrangement of the kick-starter, which raises the exhaust valve, is retained, there being no exhaust valve lifter on the handle-bars...A front rim brake is fitted to the front wheel, but a contracting band brake may be fitted to order if desired, while the rear brake is of the internal expanding pattern, actuated by a pair of pedals so that it may be applied by either foot. The usual type of Matchless clutch is fitted, and this may be actuated either by the heel and toe pedal, which has long been a feature of Matchless motor cycles, or by a lever on the handle-bar. Foot-rests instead of footboards are supplied, while 28x3in tyres are a standard. The Model J is intended not only to be a sports

model, but also a double-purpose model, and lugs are provided for the fitting of a sidecar...We tried the machine, and found it to be particularly well balanced and extremely comfortable, while owing to the fitting of a very large expansion chamber and a long exit pipe the engine is beautifully quiet. Needless to say, it has wonderful acceleration powers, steers remarkably well, and is capable of a high turn of speed. Tried on the steep hills in the Woolwich district, it made light of these on top gear, could be slowed down to a walking pace, and rapidly accelerated on a gradient of 1 in 12 or worse. As a competitor to the Americans, the new Matchless must be seriously considered."



"A sporting big twin for solo riders, the new Matchless model with a rigid frame."

"AFTER MOST SEARCHING TESTS, in which thousands of miles of road work were included, the Model E Burman gear box is now launched on the market. gear box is now launched on the market. Our readers will remember that this gear has been used successfully in the Junior Tourist Trophy Race and in most of the big reliability trials of the year, so that there is little doubt of its soundness both in detail and general design. In construction it is simple, robust, and of excellent workmanship; constant mesh gears are employed throughout, dog clutches being used to lock the gear wheels to their respective shafts as required...Either a tank rail gate or a saddle tube quadrant can be supplied, and in each case it is practically impossible to miss a gear position owing to the effective design of the quadrant. The seven-plate cork insert clutch is particularly interesting in that the corks are not of the usual circular section, but are so arranged as to present the greatest possible friction surface...Incorporated with the chain wheel is a very simple form of shock absorber. Large holes are cut in the sprocket and filled with rubber rings, the drive being conveyed through the rubber to steel bushes mounted on the driving pegs. This refinement is unusual and relieves the motor cycle designer from the necessity of incorporating any further shock-absorbing device. The box, which is admirably constructed in every detail, is inter-changeable as regards belt and chain line and bracket fixings with other proprietary gears, and the kick-starter is of sensible proportions and unlikely to fail under the most severe treatment. In spite of the robust construction of the gear, which we are informed is up to the work of most 500cc machines, the total weight is only 20lb.

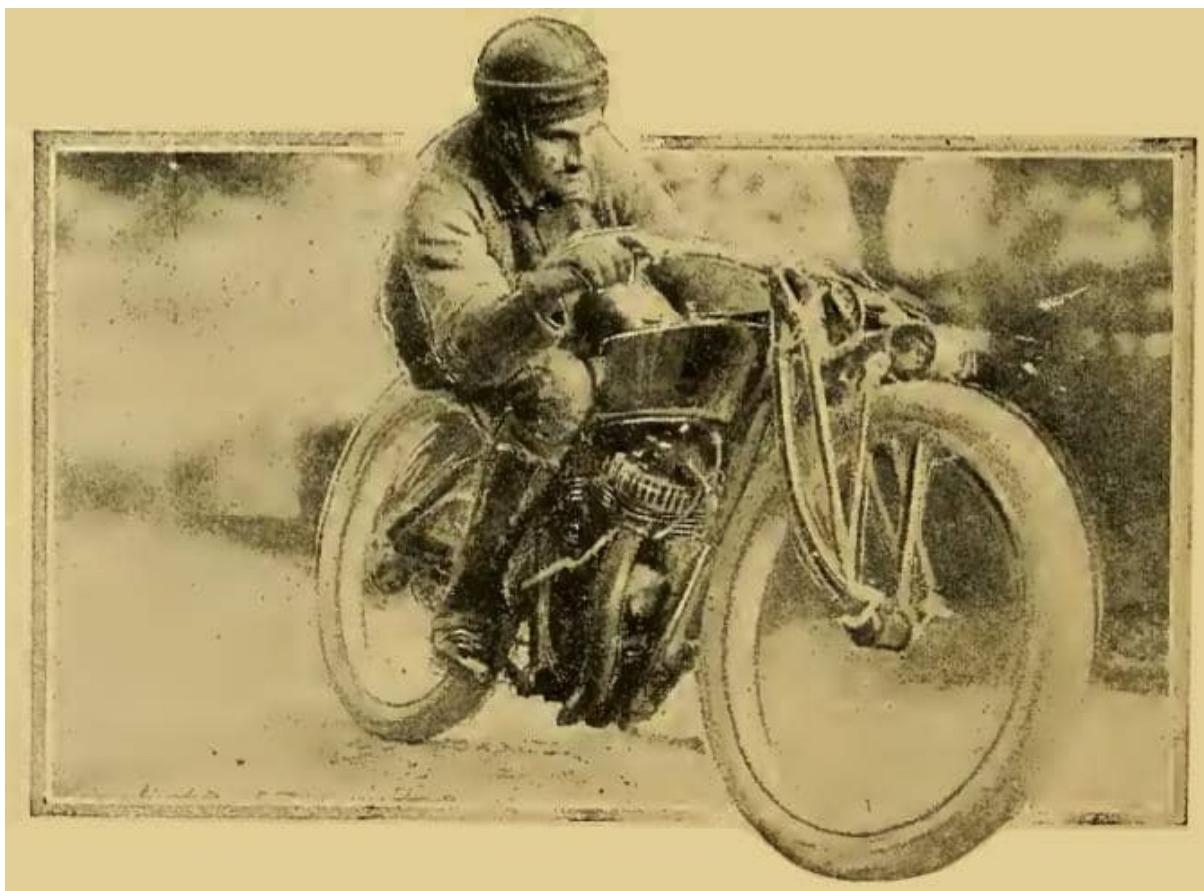


"Cut away view of the Burman lightweight three-speed gear box, showing the simple internal locking device for positioning the gears. Specially shaped cork inserts in the clutch to ensure the greatest possible friction area. Rubber blocks are inserted in the chain wheel to absorb the transmission shocks. The novel saddle tube quadrant which may be supplied as an alternative to the tank rail gate."

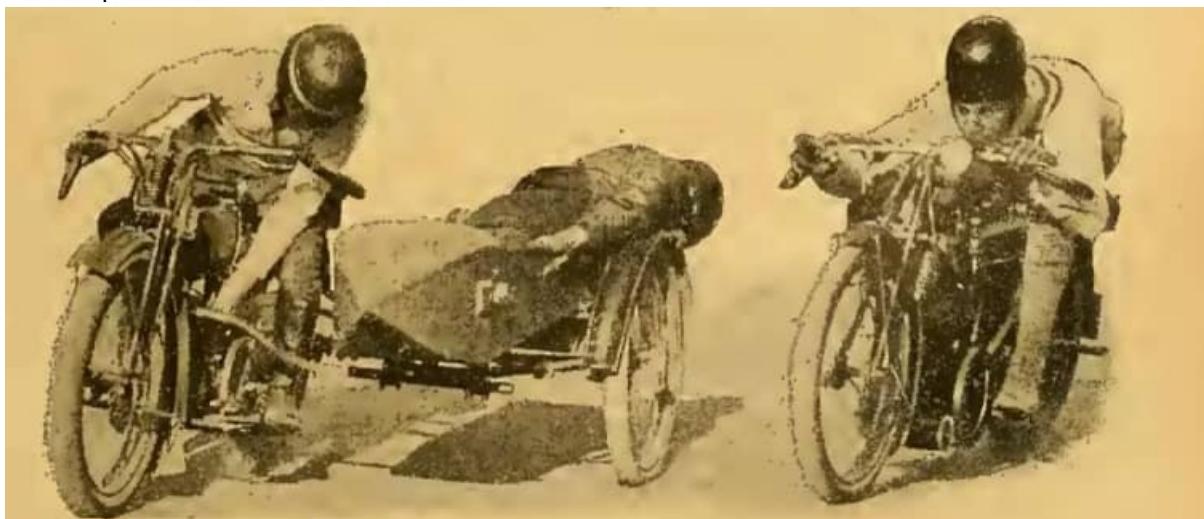
"THE MOTOR CYCLE SECTION of the Metropolitan Police, formed a few months ago, has not proved so successful as was hoped, and is to be withdrawn. The section was intended more particularly for traffic regulation duties, and for dealing with offences against the Highways and Motor Car Acts. It is quite distinct from the special branch of the detective force, known as 'the Flying Squad', which, using motor cycles and cars as occasion demands, has recently effected some sensational captures."

"TIME WAS," IXION CONFIDED, "When I used to store various small accessories in special leather holsters disposed about the machine. This habit was forced upon me by designers who sent out machines with toolbags too small to carry more than a spare plug and the requisite ironmongery; so my spare carbide, inner tube, tyre repair outfit, and oil gun demanded special receptacles. Twice this summer all these special holders have been deftly emptied by lightfingered gentry, whilst my machine reposed outside—well, outside church. Now I keep them all in my pockets. 'Tis better so."

"IT SEEMS EXTRAORDINARY THAT in issuing statistics regarding motor taxation, the Ministry of Transport should refer to motor cycles as 'cycles', as all the world knows that the ordinary cycle is not yet subject to taxation, and is still the favoured vehicle which uses the roads without contributing towards their upkeep."



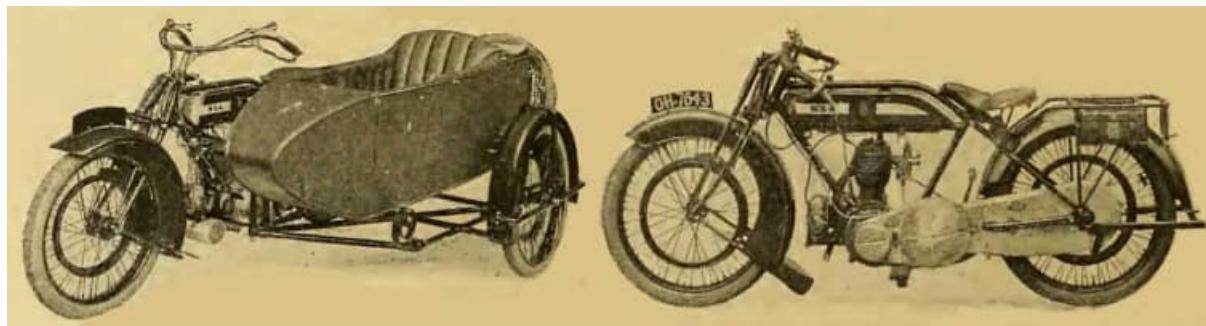
"On a Daytona Beach record-breaking Indian, Kellner won the historic Semmering hill-climb for 1921. He is shown at speed on one of the many curves on the course. A pre-war 3½hp Triumph, driven by the Archduke Rainer Hapsburg, was first in the 500cc class after a keen tussle with several post-war German machines."



"Two snapshots taken at a recent Basingstoke hill-climb. On the left AJ Fleming (4hp Harley-Davidson sidecar) changing gear while his passenger is doing his best to eliminate himself in order to reduce wind resistance. (Right) W Julian (2¼hp Levis) at 50mph."

BSA LAUNCHED AN 8HP 985CC TWIN to supersede its 6hp tourer. The rear drum and front dummy-belt-rim brakes were joined by a rear dummy-belt-rim brake; a rare example of three independent brakes. "The BSA interchangeable wheels, cast aluminium chain cases, and ample mudguarding, are, of course, retained...The 6hp engine has proved such a success that it is not

to be dropped; but it will be fitted to a lighter frame—a modification of the 4½hp frame—and will be known in future as the ‘light six’...A third novelty is the Sports model ‘four-and-a-quarter’, which may be obtained either solo or attached to an attractive-looking sidecar of the sporting variety...the piston and connecting rod have been lightened, and lighter flywheels with polished rims are employed. Normally, only one pair of footrests is fitted, but provision is made for a second pair, which also forms an additional side-car connection. A long, oblong section silencer with dual exit pipes is fitted below the chain stay in place of the usual expansion chamber in front of the engine.”



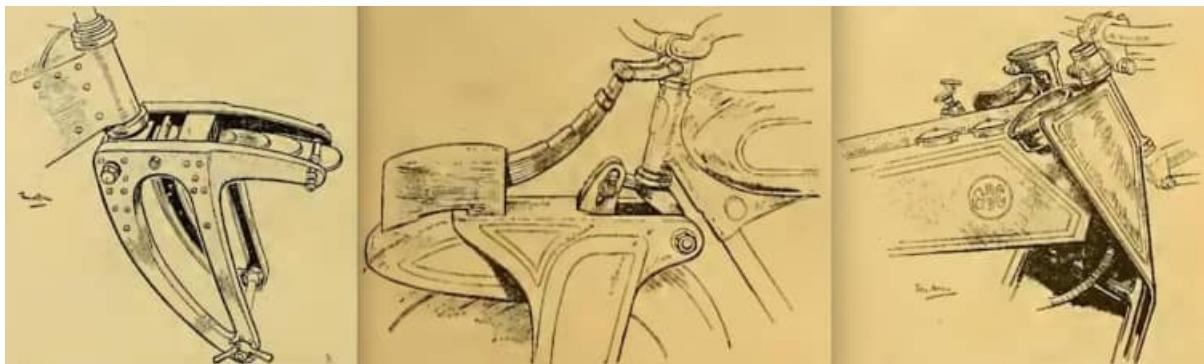
“An entirely new BSA model—the 8hp sidecar outfit. (Right) Despite its adequate mudguarding and complete chain cases, the new sporting BSA has a very speedy and rakish appearance.”

“I REMARKED THE OTHER WEEK,” Ixion remarked another week, “that the average bulb hooter is not rowdy enough for blind corners, considering the amount of traffic one meets nowadays. This provoked the Dekla people to forward me a sample of their manufacture. Its arrival reminded me that I had long meant to congratulate them on having exorcised the twists which make the ordinary bulb horn so liable to rust and so tiresome to clean, for their ‘trumpet’ is straight-sided and smooth. The note is very possibly just about as piercing as that of a bulb horn can be; but I am afraid it only strengthens my conviction that electric hooters or exhaust whistles are demanded by modern riding conditions. To quote two examples: Every time I start out from Hot Air Villa I have (a) to negotiate a walled V corner; and (b) to overtake motor ‘buses. A lorry tried to pancake me at the aforesaid corner, and when I remonstrated, the driver remarked that he had sounded his horn, that I hadn’t sounded mine, and that in no case would my blood have lain at his door. As it happened, I couldn’t hear his horn, and I had given three full-blooded toots on mine. As for ‘buses and coaches—well, I’ve tried my Dekla horns on them repeatedly, and they take no more notice of them from astern than a tipsy Aussie took of a Bolo major on Armistice night. The Dekla people make an excellent electric horn, so they will bear me no malice for my general contention that we live in a noisy epoch, and must make more noise ourselves if we wish to survive.”

MOTOR CYCLES AT THE PARIS SALON.

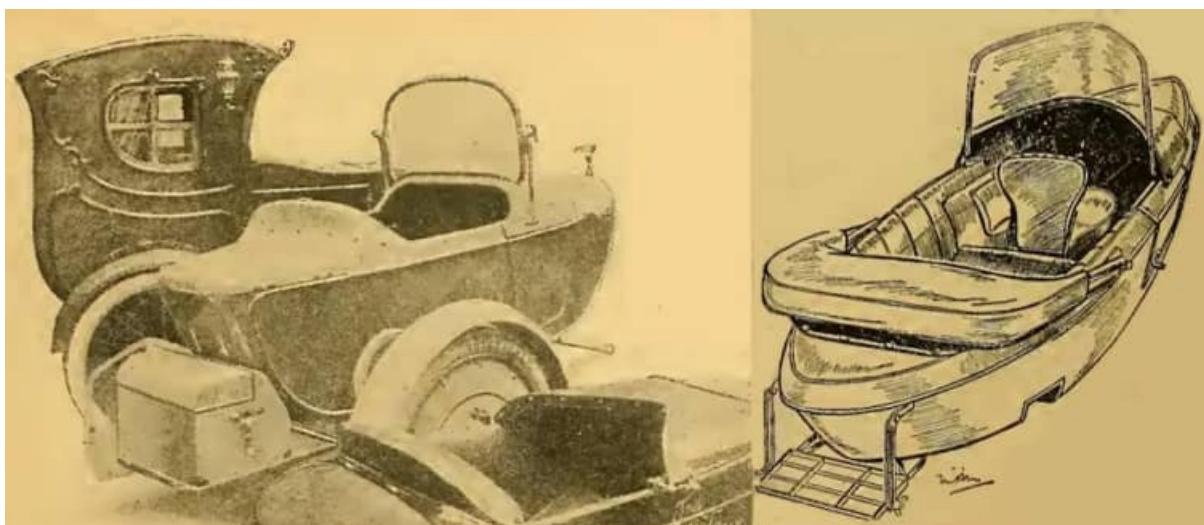
“ANY BRITISH MOTOR CYCLIST visiting the Paris Salon must first be impressed by its immensity, magnificence, and artistic arrangement. Second impressions concern the exhibits themselves, and the visitor is bewildered by the galaxy of glittering chassis and sparkling coachwork of the world’s leading cars. When, however, he turns his serious attention to motor cycles he discovers

that, if the Salon reflects French opinion, the manufacture of motor cycles is regarded as one of the subsidiary industries in the same category as pedal cycles, accessories, and tyres, and allocated a portion of the gallery where effective display is impossible. That is the main



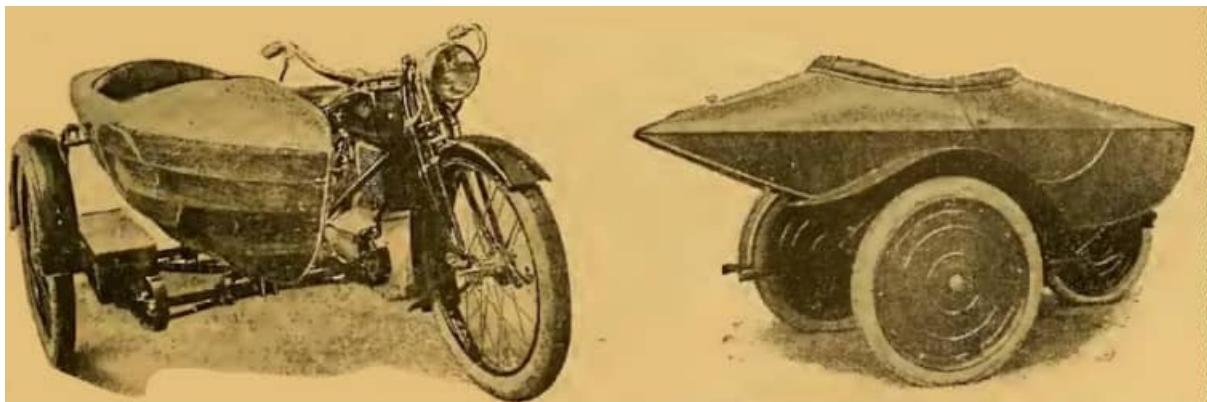
From left: "Pressed steel front forks of the Janoir. Pressed steel construction of the Louis Clement front fork. An improved detail of the French ABC extensions to the leg guards; observe the clock and speedometer on either side of the lubrication indicator."

difference between the French motor cycle industry and our own; it has not yet been taken seriously, and while these conditions prevail the motor cycle movement in France will be severely handicapped...Our products are certainly excellent now, but they were not always so. Years ago, when practically every English motor cycle had a French or Belgian engine, France led the way. In those days the names of De Dion and Werner meant perfection among motor cycle engines. Races without number were won by the brothers Collier, then daring youths, who drove their 2½hp De Dion-engined Matchless to victory on Canning Town track...Curiously enough the De Dion-engined motor bicycle was a rarity in France...the makers' motor tricycle catalogue of those days stated that they were prepared to accept orders for motor bicycles but did not recommend them...the French motor cycle movement is on the increase...the wonderful success of the motor cycle in England has caused the Frenchman to think there must be something in it; secondly, during the late war, he



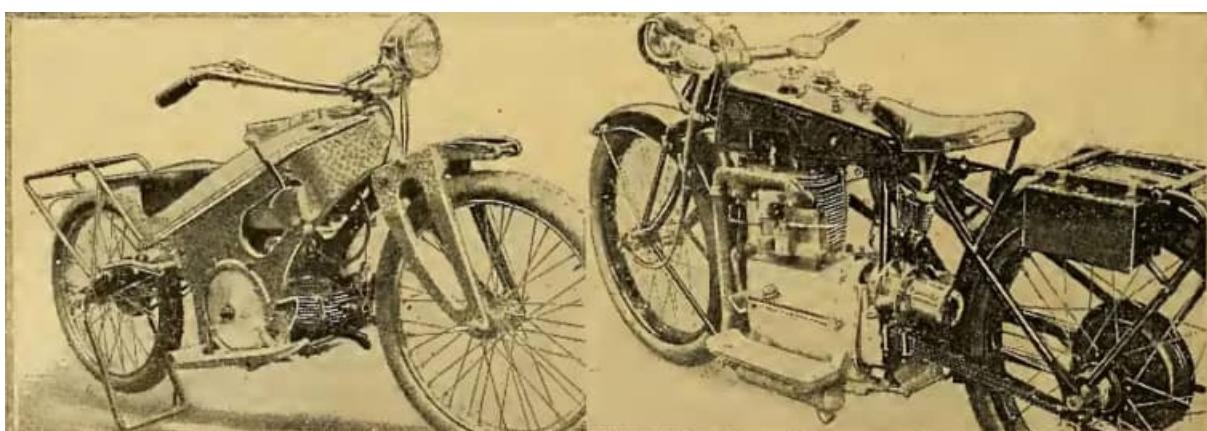
"A corner of the AG stand showing in the background an elaborate Sedan chair—the most extravagant example of sidecar body building ever exhibited. In front of it are two of the beautifully finished touring models. (Right) Graceful AG family body which has a bird's-eye maple 'deck'."

has seen with his own eyes what our machines can do; and, lastly, the end of the war has thrown a number of British and American ex-army motor cycles on the market at a very moderate figure...Many French machines are now built on British lines, but while the fact that this must be so is realised, it is evident that a good deal of work yet remains to be done to bring them even to a state of equality with our own productions. When the re-establishment of peacetime industries took place in 1919, the French motor cycle industry was to all intents and purposes reborn. Viewed as the productions of a new industry, the French motor cycles at the Paris Show reveal



"A real dinghy sidecar on the Lutece. It is superbly finished in the natural colours of the wood—teak for the hull and bird's-eye maple for the deck. (Right) The height of the Blenot sidecar appears to be absurd, but French passengers desire to be on a level with their drivers in order to be sociable."

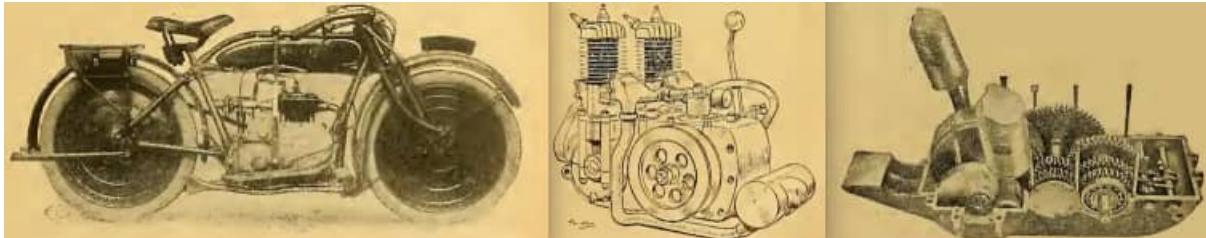
an enthusiasm and enterprise which, from the British standpoint, is surprising, to say the least. The English visitor must be astonished at some of the remarkable designs which are so different from what the British rider expects...In England, the JAP four-stroke and the Villiers two-stroke are fitted by the majority of 'assemblers'; in France the Ballot two-stroke and the Zurcher four-stroke occupy similar positions...Any visitor to the Grand Palais must be impressed by the large number of small engines fitted as auxiliary power units to pedal cycles...France is a great cycling country and always has been, and it is considered that the greatest demand



"Two unconventional designs. The pressed steel Janoir, with 8hp flat-twin engine. (Right) The Lutece, which has a side-by-side twin engine (built integral with gear box), shaft drive, and car type springing."

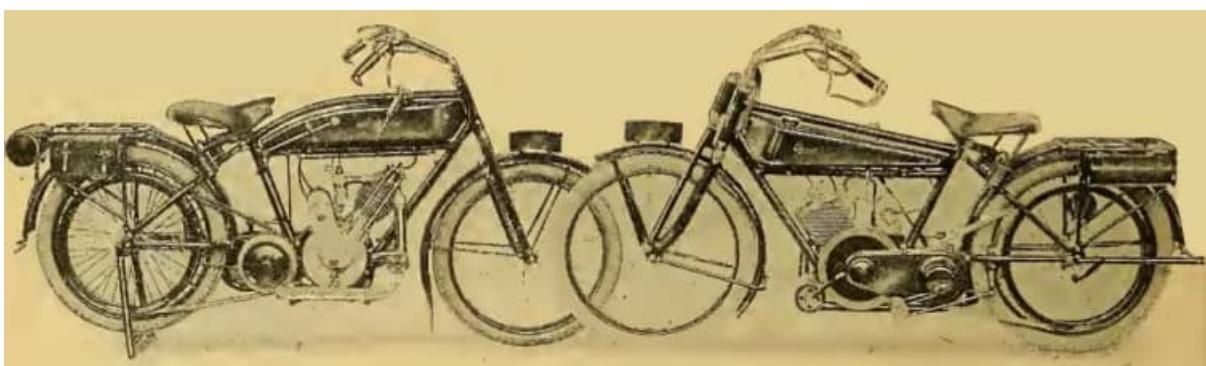
for power-propelled machines will eventuate from ordinary every-day cyclists...there are tiny two-strokes and four-strokes utilising every form of mechanical transmission...French motor

cycles are not well equipped with regard to brakes. On a large number of machines only one brake is fitted, and where the equipment includes two brakes they are usually fitted to operate on the same belt rim...Excluding the dozen or so auxiliary motors, no fewer than 30 French makers of motor cycles are exhibiting at the Paris Salon, a really excellent entry for a young industry. In addition, there are examples of Belgian, American, and Italian



(From left): "Bleriot 500cc side-by-side twin four-stroke which embodies a concealed rear springing system; the disc wheels are built up from steel pressings. Pulley side of the two-cylinder two-stroke engine-gear unit of the new model Bleriot. Details of the Bleriot two-cylinder two-stroke power and gear unit, showing the lower half of the crank case, the gears and pistons."

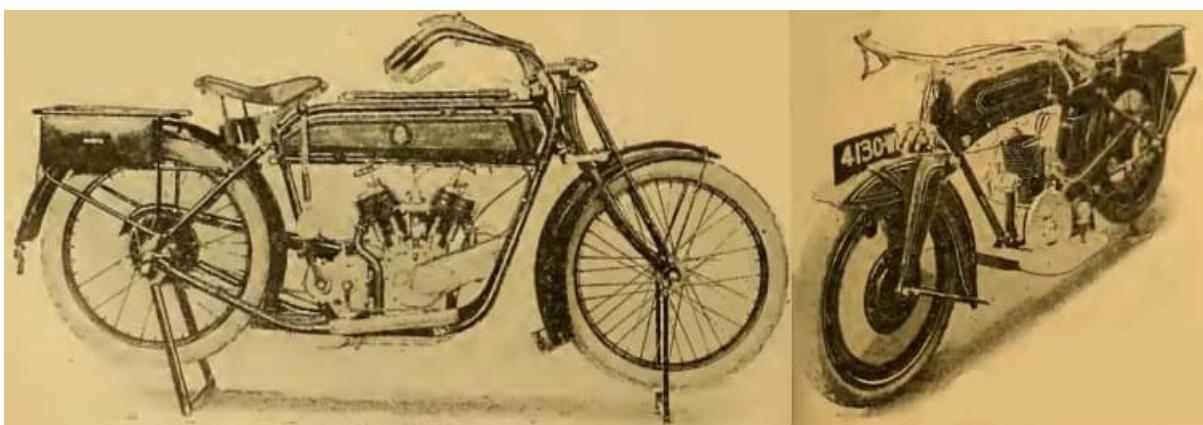
productions, besides nearly 30 British makes of motor cycles and sidecars on view...The French motor cycles exhibited at the Grand Palais may be divided into three main classes: the unconventional, the conventional, the motorised bicycle...The very English expression 'like nothing on earth' was never better exemplified than in several machines at the Salon, but this is not meant in any sarcastic spirit...as an unconventional machine the Janoir certainly takes first place...it not only employs a pressed steel frame, but its general outlines are quite the reverse of the accepted idea of what a motor bicycle should look like. It is sprung fore and aft on leaf springs, and a spring saddle is not considered necessary...The Lutèce is unconventional in another direction, and conforms more to accepted motor cycle practice plus certain features borrowed from the car. It has a vertical twin engine with gear box integral



"The Magnat Debon, a 400cc four-stroke with overhead valves. It has a two-speed gear, chain-cum-belt transmission and a cone type clutch. The design appears to be somewhat spoiled by the single forks fitted. (Right) The Terrot two-stroke, an exceptionally well finished machine, following more or less conventional lines. Observe the square fins, and the spare petrol tin and circular tool box on the carrier."

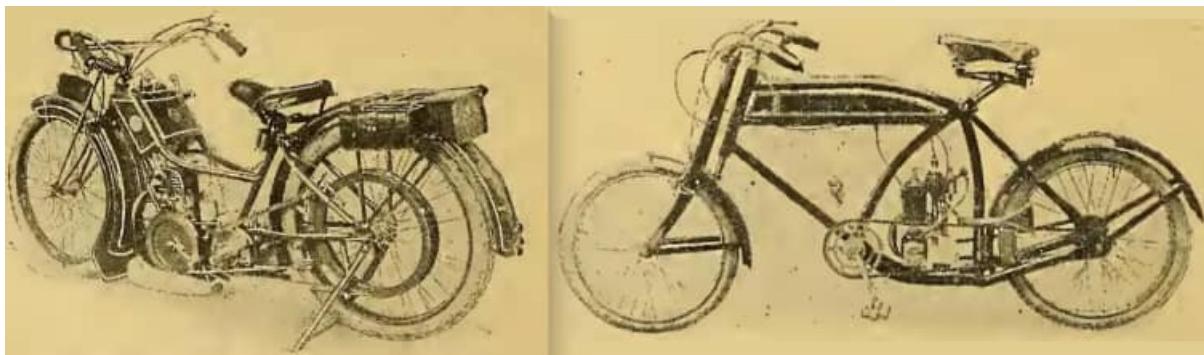
with the crank case, and the final drive is by shaft. Like the Janoir, it is sprung at the rear on leaf springs, but no torque rods are fitted...The Louis Clement is another pressed steel machine...in 1919 a twin-cylinder model was exhibited, and this has been abandoned in favour of a Train single-cylinder two-stroke of 500cc capacity. Side-by-side twin engines are favoured by the Blériot company; in addition to the four-stroke twin-cylinder model a twin two-stroke of 750cc

capacity is introduced this year...Like the four-stroke model, the gear box forms part of the crank case, the clutch is located between the two crank chambers, and there are three speeds and reverse...The last machine in this 'unconventional' group is the Viratelle. It has a water-cooled side-by-side four-stroke twin engine, placed across the frame, with integral placed across the frame, with integral gear box, the final drive being by chain. Two circular radiators are located at the fore end of the tank. A single-cylinder model on similar lines is also exhibited...Among the conventional types probably the nicest motor cycle in the Show from the English point of view is the French-built ABC. Several minor amendments have been made to the original Bradshaw design. The internal expanding brakes on both wheels are larger, the hot air muff on the induction pipe has been increased in area, and the overhead valve rockers are fitted with extra wire springs. Another addition is an oil circulation



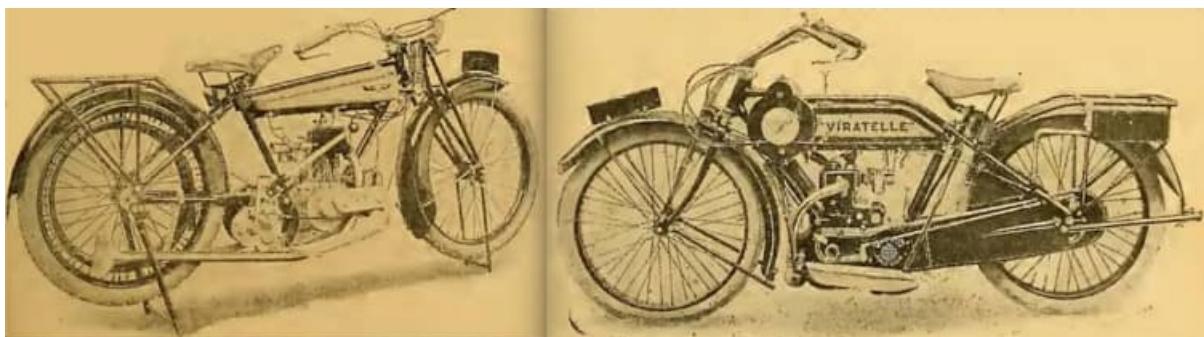
"The Bianchi V-twin, quite one of the nicest Continental machines exhibited at the Paris Salon. The engine is of 7hp, and the crank case bolts directly on to the horizontal duplex members of the frame. The gear box is fixed to the engine and, at the rear, is connected by a single lug to the frame, thereby providing a three-point attachment. (Right) Now fitted with a two-stroke engine of 500cc, the Louis Clement appears in an improved form. It has pressed steel frame and forks."

indicator fitted on the top tube, and forms the centre of three dials, the speedometer and clock being the other two, neatly disposed at the front end of the tank and protected by inturned extensions of the leg guards...the Gnôme-Rhône, a taking looking machine quite on English lines. The engine is a four-stroke single of 500cc, having an outside flywheel and a cylinder reminiscent of the Triumph. Chain-cum-belt transmission is adopted, with a WD type Sturmey-Archer gear. The mudguarding is exceptionally well done, the side extensions being part and parcel of the main guards and of stouter metal than is usually adopted by British manufacturers...One would expect something distinctive from the Peugeot concern, but apart from a novel front wheel-driven motorised bicycle, the Peugeot models are no different from their many contemporaries fitted with proprietary units. Other mediocre machines with old names are the Terrot, Labor, Alcyon, and Rene Gillet, all of which fit proprietary units. Taken on the whole, they are quite good for the market they are intended to supply, but it seems sad that in, an industry that once led the way the pioneers should display so little enterprise. The Griffon, another well-known French motor cycle, is an exception, and three distinct types are exhibited. The first is little more than a motorised bicycle, but has a tiny and beautifully made four-stroke engine with overhead valves; the second type is a four-stroke lightweight approximating to the popular JAP-engined lightweight in Great Britain; and the third a V-twin of 6hp. Both the two last-mentioned models are fitted



"The only full-powered lady's motor cycle in the exhibition—the Soyer. It is of very pleasing design, exceptionally well made, and the tank forms part of the frame. The engine fitted is a two-stroke having a detachable head. (Right): One of the several miniature motor cycles, the Monet-Coyon. Machines bearing this name, and engined with small four-stroke power units, are offered to the public in many forms."

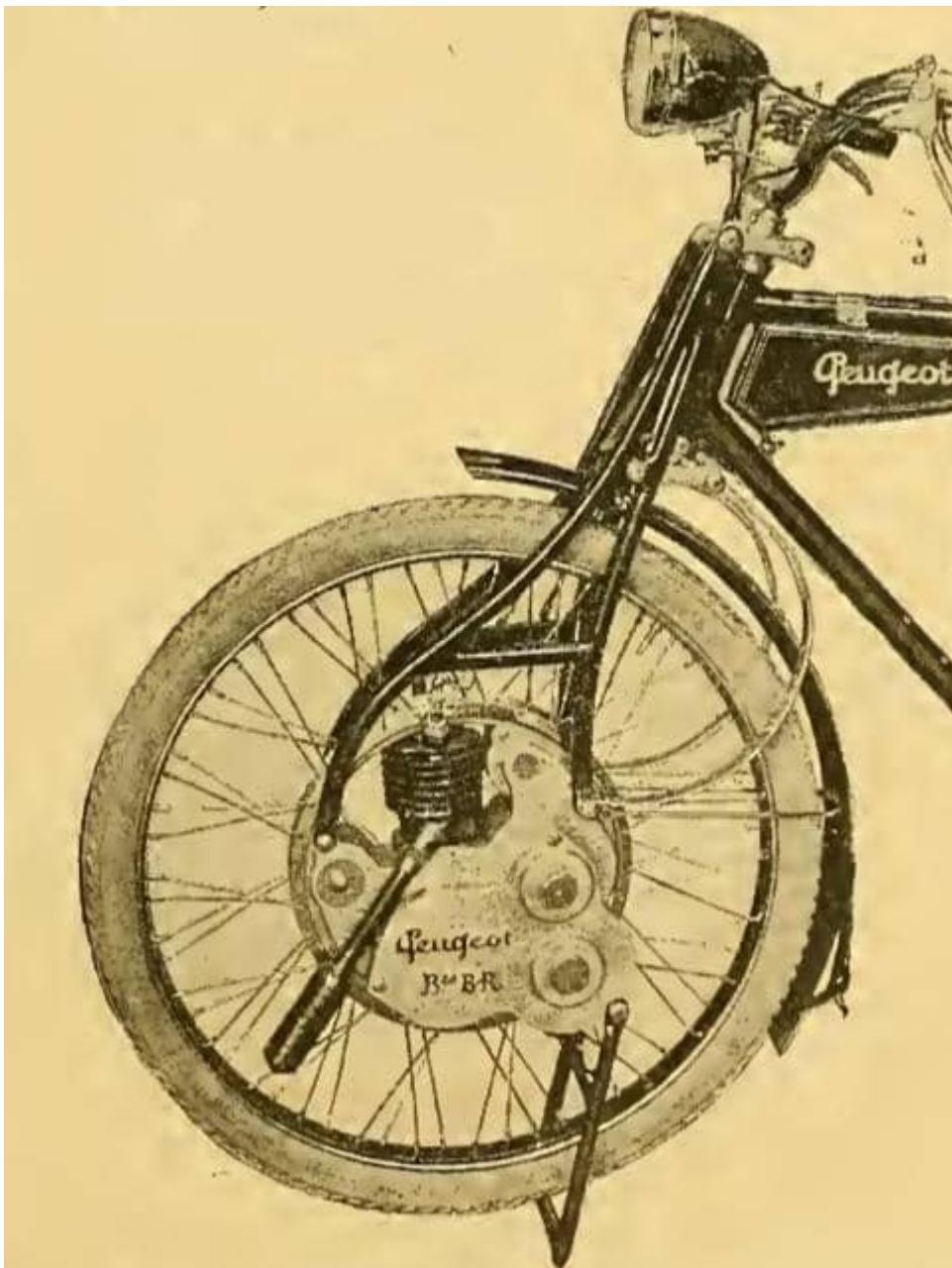
with Burman gears. Previously known as the GL—a machine which competed in the 1919 Six Days Trial—the MAG-engined Oriol follows accepted British practice, and some minor details, such as the foot plates and silencer, are carried out in a very neat manner. On the other hand, the finish of the mudguards is poor. Such names as Ultima, Thomann, Armour, DFR, Supplexa, and Blanche Hermine grade the tanks of quite conventional types of motor cycles, while the Yvels—the winner of the 250cc class in the Grand Prix—is also on view. A machine known as the Motosolo has a water-cooled two-stroke engine with the radiator neatly arranged in the fore end of the tank. The Magnat is a 3½hp four-stroke with overhead valves, and the Soyer a neat two-stroke with detachable cylinder head. The only full-powered lady's model in the show is exhibited by this firm. It is a well-designed machine with an open frame, and a tank which forms a part of the frame. We were informed that there are, however, very few lady motor cyclists in France, which is somewhat surprising



"The Gnôme-Rhône, a machine which conforms to British ideas of clean design and finish; the engine has an outside flywheel and the gear fitted is a Sturmey-Archer three-speed. (Right) Side-by-side twin water-cooled Viratelle, with radiators on the side of the tank."

considering the activity of French ladies in other outdoor pastimes...When we say the French motor cycles do not come up to the English as regards design or finish, we may be forgiven, but as regards sidecar bodywork, upholstery, and finish the French have us badly beaten. There is no doubt that quite the finest carroserie yet attached to motor cycles is now on view at the Paris Salon. There is a distinct tendency to follow boat design, and one attractive feature is the varnished light wood deck which contrasts pleasantly with the painted or varnished natural dark wood of which the rest of the body is usually built...A side car on the Lutece stand is so like a boat, having a correct bow and a yacht pattern stern, that it looks as if one could rig a small

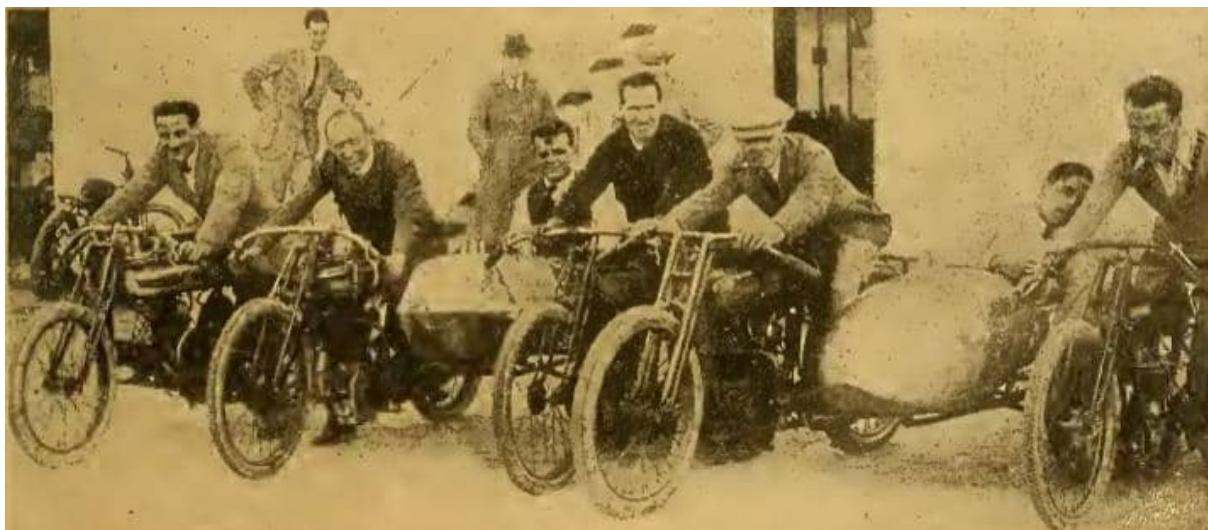
mast and sail, put it in the water, and sail away. The deck is of varnished bird's-eye maple and the hull of mahogany, copper fastened—very pleasing contrast—and, curiously enough, these boat pattern bodies do not look too uncomfortable."



"One of the novelties of the Paris Salon: The Peugeot motor-driven bicycle wheel."

THE BLUE 'UN ESCHEWED HYPERBOLE but was clearly impressed by the BMCRC Championships at Brooklands: "The five-lap scratch championship races in the six standard classes produced the best afternoon's motor cycle speed work ever seen in this country. Blistering sunshine and a very large gate honoured the occasion, and records were broken wholesale...A megaphone warned the starters in each race that 'hanging on' would entail disqualification, and that overtaking must be done on the outside wherever possible...JV Prestwich (2½hp Diamond-JAP) was a hot favourite [in the 275cc class]. He proceeded to run clean away from the field and, ignoring many signals to slow down from backers, who feared a valve might go, he won anyhow [setting a 10-mile record at 62.28mph]." J Emerson won the

500cc class on his 3½hp Douglas, setting a 10-mile record at 79.54mph. The 1,000cc Solo Championship was described as "Another gorgeous race! To the general amazement, and thanks mainly to a superb start, an English twin led for the first lap; but Remington (8hp Blackburne) was soon passed by Le Vack (7-9hp Indian), who led on the second lap, only to yield to Temple (7-9hp Harley-Davidson) on the third. The Harley-Davidson streaked round the track at a frightful speed, and won by at least 100 yards [setting a 5-mile record at 96.54mph and a 10-mile record at 91.17mph]...Though no more than five starters turned out for the 600cc Sidecar Championship it was easily the most exciting of the day, and possibly the best ever contested at Brooklands. Pullin (Douglas sc), Horsman, and O'Donovan (Norton sc) raced over the whole five laps in a compact little clump at over 60mph. Horsman led after the first and fourth laps; while Pullin was in front on laps 2 and 3, though there was never more than a few yards in it; and O'Donovan was always with them. On the fifth lap O'Donovan went ahead, and won, to the rage of the bookies, who had stopped laying up fifteen minutes before the start...The 1,000cc Sidecar Championship ought to have been another Temple-Le Vack duel; but the Indian refused to start for 100 yards, and the repeated effort caused the engine sprocket to shear not long after. Temple's famous Harley-Davidson, 'Mutt', now adorned with a beautifully streamlined aluminium sidecar, led by 100 yards at the end of one lap, and travelled so magnificently that the spectators forgot to deplore the runaway character of his win. Great anxiety was created by a report that Le Vack had gone over the banking, which was fortunately an invention [Temple set a 10-mile record at 75.57mph]."



"The winners of the various championship races at Brooklands. Left to right: JL Emerson (3½hp Douglas), DR. O'Donovan (4hp Norton sidecar), E Remington (2¾hp Blackburne), CF Temple (7-9hp Harley-Davidson sidecar), and JV Prestwich (2¼hp Diamond-JAP)."

"IN SPITE OF MANY IMITATORS, the Scott trial still remains in a class by itself as regards sporting events. Perhaps the reason lies in the suitability of the country in the neighbourhood of Ilkley, or perhaps the secret lies in the cheery spirit of the organisers and the thorough sportsmanship of the Yorkshire riders who form the bulk of the entry. On Saturday last a band of some 50 optimists gathered at Otley in a drizzling mist, of whom 29 only were to survive the course, and many of these were very late. Most of the competitors were mounted on Scotts—old Scotts, new Scotts, Scott Squirrels, and hybrid Scotts—but there was a fair sprinkling of other machines. A number of machines had exhaust extensions reaching up to the carrier so as to avoid 'drowning' in the deep splashes. Within ten minutes of the start the riders were plunged into Dobpark splash, a deep and rocky stream, with a natural gallery for spectators in the form

of a packbridge. Many failed, to the great amusement of the onlookers, and many crossed safely to receive well-merited applause, but perhaps the best crossings were those of L Whalley (Sunbeam) and J Baker (Scott). The real hard work commenced at Grimwith Reservoir, where all signs of a track disappeared, and competitors attempted to follow a line of stakes, picking their way between boulders and bogs. This stretch culminates in a series of gulleys, the last of which formed by a stream. It was amusing to watch the set faces of the old hands as they approached the obstacle and the looks of blank amazement on the faces of those who saw the course for the first time. Some machines were already showing signs of damage, and after the long spell of low gear work many exhaust notes were distinctly fluffy. Catherick's Dunelt had a damaged mudguard. Clapham (Scott) dashed at the obstacle and shed his saddle frame, several had missing footrests, and one carrier was adrift...Mrs Knowles, whose very sporting entry had been the subject of much comment, did not arrive, having had the bad luck to suffer from a drowned magneto...Near Grassington F Moffat (Scott) collided with a cow and retired. Darnbrook Hill was in fair condition, but, shortly after, a humorous youth nearly caused a bad accident by slamming a gate shut in the face of Capt Knowles, who was approaching at speed on his Norton...The Scar was practically unclimbable; in fact not a single rider made a really clean ascent with feet on the rests...In spite of falls, it was a cheerful group of survivors who assisted Mr N. Vinter in auctioning a programme signed by CP Wood and Mrs Knowles; the sum of nearly £5 was collected for this work of art, in aid of St Dunstan's Hospital. Best performance of trade, CP Wood (3½hp Scott); best performance of amateur, J Whalley (3½hp Sunbeam); best performance on a Scott, exclusive of Scott staff, G Hill (3½hp Scott); Trade team prize, Scott team (CP Wood, H Langman and W Clough); amateur team prize, Sunbeam team (HW Sellers, AR Naylor and W Wells) club team prize, Bradford Team comprising W Moore (Scott), AR Naylor (Sunbeam) and CB Haig (Triumph); consolation prize, BH Catherick (Dunelt). The consolation prize for the man who fell off most often was indeed a trophy. It took the form of a bottle of whiskey with a

"Alex Hill, a Triumph rider, illustrates 'Spectator's' remarks that 'the route was the last word in

villainy'. (Right) One of the pages of 'advertisements' in The official programme of the Scott Trial."

suitable quotation attached, pointing out that, although in a race all ran—only one obtained *the prize*." *The Motor Cycle's* correspondent 'Spectator' explained: "The trial is unique in many ways, the organisation is excellent, and every provision is made for the comfort of competitors except when in the saddle and the route is the last word in villainy...no one who has not seen the course would believe that motor cycles would survive them. Any of some five or six sections would cause streams of protests in an ordinary trial, yet not a grumble is to be heard from the tired and often bruised competitors, who are proud to receive their certificates or joke about their mishaps. A premier award is a thing to dream of, and many would rather earn a certificate in this trial than a 'gold' in an ordinary reliability event...Of the 29 machines to complete the course, there were not ten which had emerged without visible damage. Why do we ride? Why do we risk our necks and our machines? Why do we enjoy it? And what good does it do?—I do not know. All I know is that if I do not again compete next year—and on my own machine, too—it will be because I am to be numbered amongst the halt, or the maimed, or the blind." The programme included some useful tip..." Instructions to competitors: Competitors must on no account assist one another by drinking all the water in the splashes. Competitors found removing gates to make footboards will be disqualified. Competitors may lift their machines over rough places, but must bounce them on the ground every three paces. Competitors must cross all splashes under their own power. The use of oars, floats, life-buoys, etc, is prohibited. Instructions to spectators: Don't loiter in the middle of the splashes, as you may baulk other swimmers. Don't stand in the road! Lie down; it makes a better surface for the competitors. Valves, wheels, engines, cylinders, etc, may be found on the road. These will have been discarded by competitors to reduce weight. Spectators will greatly assist if they bring any such spare parts direct to Burnsall. This is not a Race, it's a Tragedy." *The Scott Trial programme included a rather fine poem which you'll find at the end of the poetry page.*



"Over the Yorkshire moors. Jesse Baker (3¾hp Scott) bogged near Grimwith Reservoir. Awaiting their turns to cross the obstacle are B Hill (2¼hp Velocette), GM Townsend (3½hp P&M) and M Sedgwick (3½hp Sunbeam).

"AN UNQUALIFIED SUCCESS! THAT IS the verdict upon this year's annual Show, for every one of the 265 exhibitors displays something of real interest to the motor-cyclist. A cursory examination of the exhibits indicates in unmistakable fashion that designers are still profitably expending energy to develop the most economical form of motor vehicle. That there is still scope for the designer and the inventor who will look far enough ahead no one will deny, for who can judge the ultimate limits of the motor cycle in an age that has brought the science of engineering to its present high estate? Less than twenty years ago the motor cycle was a vehicle in embryo. To-day at the Olympia Show there are hundreds of machines of such design and quality that the novice, after an hour's tuition regarding the controls, could employ any one of them to take him from one end of this country to the other at a cost of less than a penny per mile. That this fact is becoming more appreciated every day is evidenced by the enormous increase this year in the number of motor cycles on the roads (approximately 100,000), and if 1922 is not another record year, it will not be on account of lack of interest."

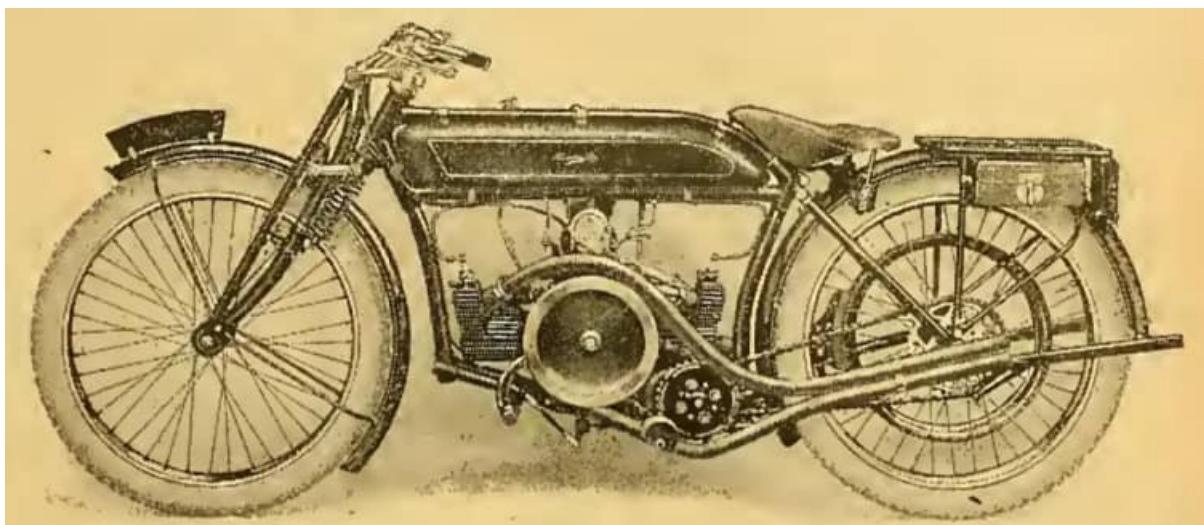


"1922 IS TO BE A YEAR OF 350CC SINGLES. There is scarcely a firm catering for the solo rider who did not show at least one model with this type of engine, while many give alternatives of sporting, touring, and even sidecar types. This is a step in the right direction, for it is a proof that the efficiency of small engines has been increased until the power output is sufficient to meet the demands of all normal work. Indeed, some of the sports models are capable of over a mile a minute—a speed which is seldom attained on the road even by sporting riders—while the tourist who has no desire for sheer speed will find that the modern '350' will take him anywhere, will need no more attention than the 500cc of a year or two ago, and will be altogether lighter and handier. Undoubtedly the 350cc machine has come to stay, and, in course of time, will only be ousted from pride of place by the development of the 250cc engine—a type which is fast coming to the fore. All this must not be taken to mean that the big single and big twin are dropping out of their own particular spheres. In fact, the industry has never been better represented in these lines than at the present moment. In the larger classes, development has taken place along similar lines, and our friends from across the herring pond may have to look to their Brooklands laurels in the course of the next few months."



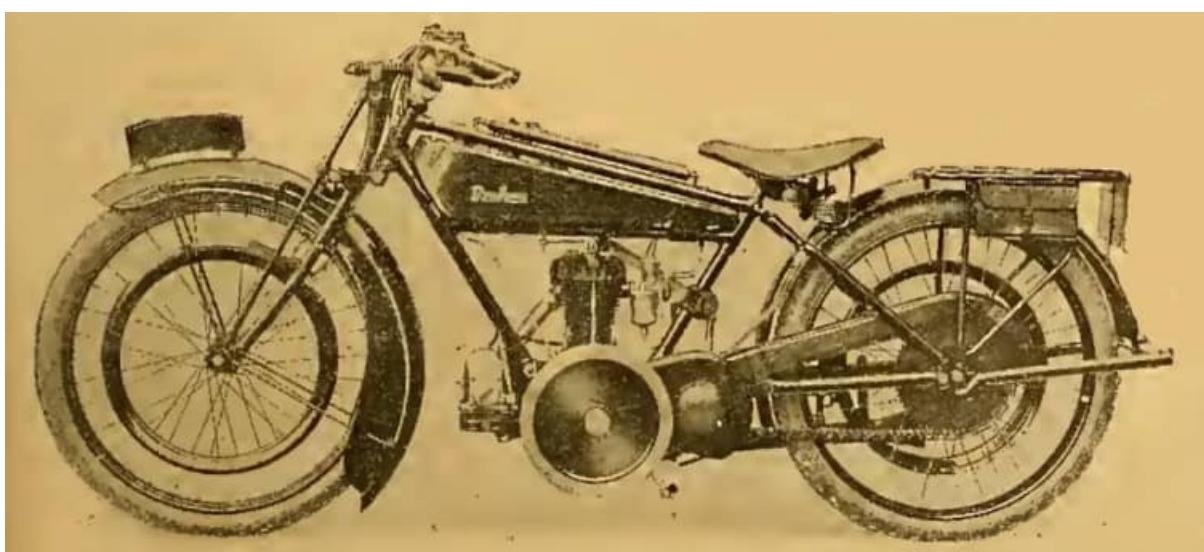
Miss Peggy Fraser, herself a motor cyclist, is the only fashion artist to consider the requirements of her sisters of the wheel. Some time ago Miss Fraser designed two motor cycling costumes, which were published in these pages, and now she submits three designs for hats in suède and glacé kid.

"NEXT YEAR THE SPORTING solo rider will be specially catered for by several firms who have hitherto devoted themselves to, and built up reputations on solid, reliable double-purpose mounts. Quite one of the most attractive of these new 'sports' models is the 1922 flat-twin Humber, which will sell at the wonderfully moderate figure of £100. In general layout the sporting model differs but little from the standard Humber, which, incidentally, was always a fascinating solo machine. Closer examination reveals several modifications and improvements; and that these have been successful is proved by the fact that the new model has already been timed to do 75mph on the road. Aluminium pistons, with two narrow rings at the top, a higher compression ratio, a redesigned camshaft giving a quicker lift to the valves, and completely interchangeable valve pockets are the chief alterations to the well-known 600cc (75x68mm) flat twin engine...Although the standard three-speed gear box with clutch and kick starter is used, no transmission shock absorber is fitted neither are chain guards, although it has not been definitely decided that these will be discarded."



"Flywheel side of the Sporting Humber, showing the exhaust arrangements."

FROM ALL INDICATIONS NEXT YEAR will be a lightweight year...The 350cc machine with a three-speed gear and all-chain drive is now a true go-anywhere mount; and realisation of this fact has led the makers of the Rex-Acme to expend much thought on a model of this type to sell at a very competitive price. In appearance the new lightweight suggests a de luxe specification, and it would be difficult to point out any feature, either in design or finish, which could reasonably be improved were price a matter of much less consideration. The power unit is a 2 $\frac{3}{4}$ hp Blackburne engine, and the method of almost wholly enclosing the primary chain—a difficult matter with an outside flywheel—is very neat. Either a two-speed or a lightweight three-speed Sturmey-Archer gear box may be fitted at option, and a transmission shock absorber is dispensed with by using a Brampton spring link chain for the final drive. The brakework is simple, neat and efficient—dummy belt rim on both wheels...Brampton forks, with double vertical springs, are standard, as is a neat, 'flat' handle-bar. Finished in Royal blue, the tank has unusually good fittings, including the 'most visible' type of Best and Lloyd drip-feed, with a flat, circular glass, and large, secure filler caps. It holds about one and a half gallon of petrol."



"Neat lines are followed in the new 2 $\frac{3}{4}$ hp three-speed Rex-Acme."

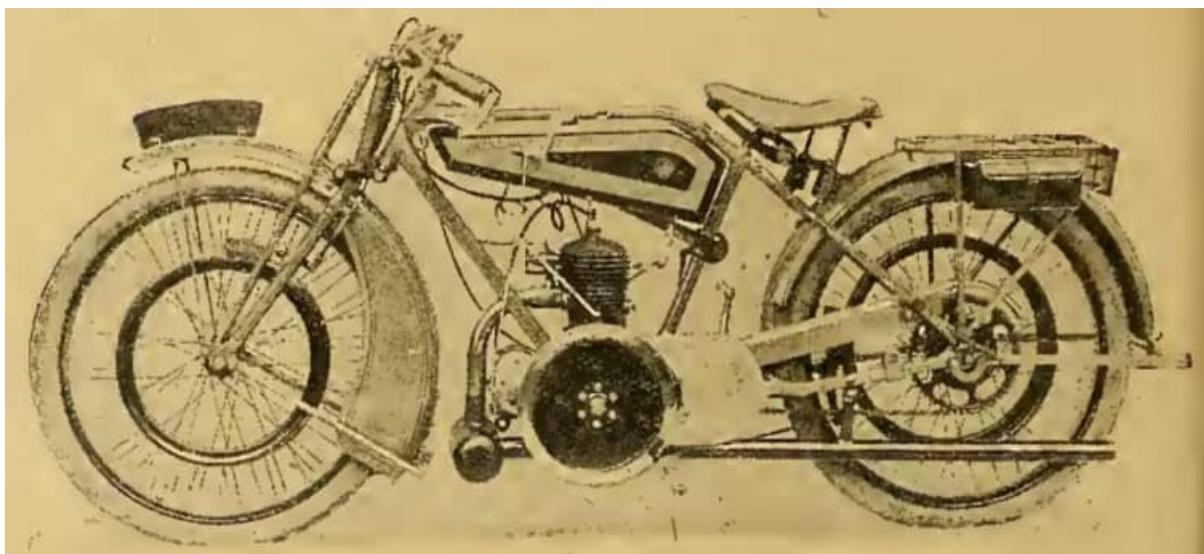
"WITH THE CONVERSION OF THE 3 $\frac{1}{2}$ hp twin into a true sports model, there will be a 1922 James to suit every type of motor cyclist. In this policy the James Co is almost unique, for the

machines are made throughout at one factory, and not merely assembled, like the products of most other firms with an ultra-wide range of models...the new sporting (496cc) V-twin engine does not differ in general design from last year's, but its efficiency is such that a guaranteed speed of 60mph may be obtained without special tuning...[it has] a wonderfully natural and comfortable riding position—quite the best we have yet experienced...the 4½hp (598cc) single is primarily intended for economical sidecarring, and has also undergone much improvement for 1922. It is now an easy task to remove the cylinder, the design of which has been modified. Framework and cycle parts have, again, been cleaned up and lightened, and 28x3in tyres have been standardised...So successful has been the 7hp (749cc) sidecar outfit this year that only improvements in what may be termed convenience have been made. All three wheels are quickly detachable and interchangeable, and it is proposed to incorporate a speedometer drive which will remain in situ when the front wheel is removed. Oil-bath cast aluminium chain cases replace the light guards hitherto fitted, and the brake pedal is now offset to give easier operation.



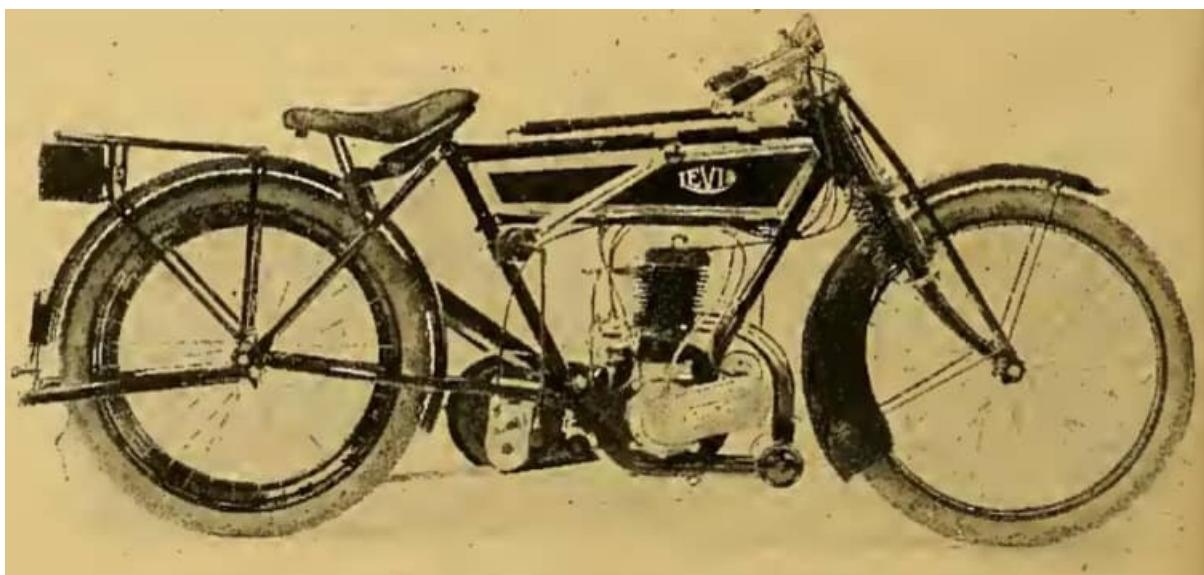
"Aluminium chain cases and detachable and interchangeable wheels are the chief alterations to the 7hp James outfit. Vee shaped Sterling leg-shields will also be substituted for the type shown. (Right) The 'Big Single'—a sturdy example of the economical sidecar machine."

"NO VERY GREAT CHANGES WILL take place in the 1922 Ivy models. A neat little dummy belt rim brake will be added to the front wheel, the tank will be slightly modified, though it will retain the distinctive Ivy outline, the spring forks will be slightly altered to conform with the type of fork associated with the name of Brampton, and a new cylinder will be fitted to passenger machines. This cylinder is an imposing casting with long deep ribs and an increased cooling area for the head. Its introduction is due to the fact that the manufacturers considered their standard cylinder more suitable for solo and sporting work, and rather on the high efficiency side for towing heavy loads. The new casting has been designed for general all-round performance, and a considerable improvement in pulling at low speeds is claimed."



"The latest sports model 3hp Ivy, although unaltered in its general appearance, has been improved in several minor parts."

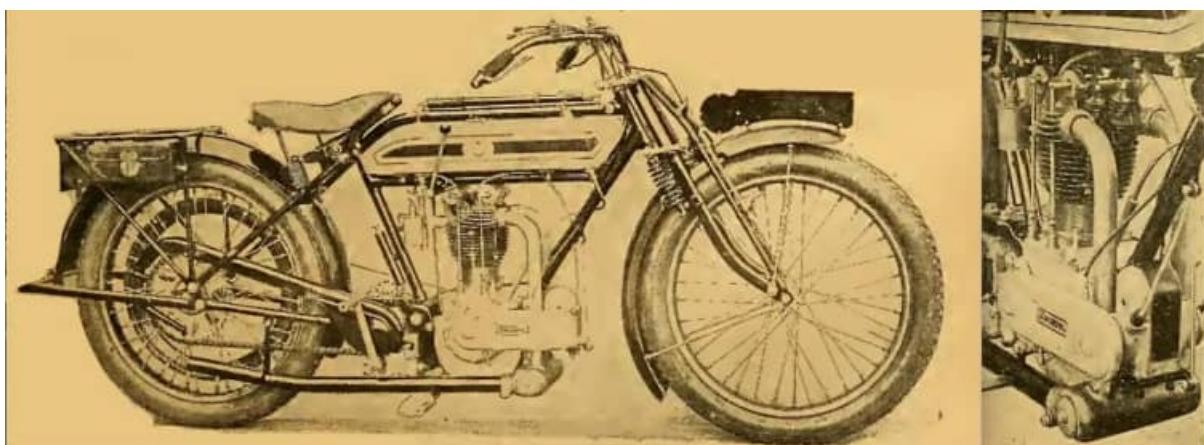
"VERY LITTLE ALTERATION WILL be made to the popular little 211cc Levis in the near future. All essentials remain unchanged, but a few minor details have been cleaned up. A very smart little machine will, however, be staged at Olympia embodying the 247cc engine. Having a bore and stroke of 67x70mm., this engine is the TT power unit modified for touring purposes. It has plain bearings throughout, and all the well-known Levis features are retained. It will be fitted in a new frame with sloping top tube, the tank being carried on substantial platforms brazed to the duplex detachable lower rails; 24x2in. tyres are fitted. A feature of this new type will be that the single-geared model may be converted to a two-speed machine without structural alteration."



"Entirely new frame design has made a most attractive 2½hp Levis."

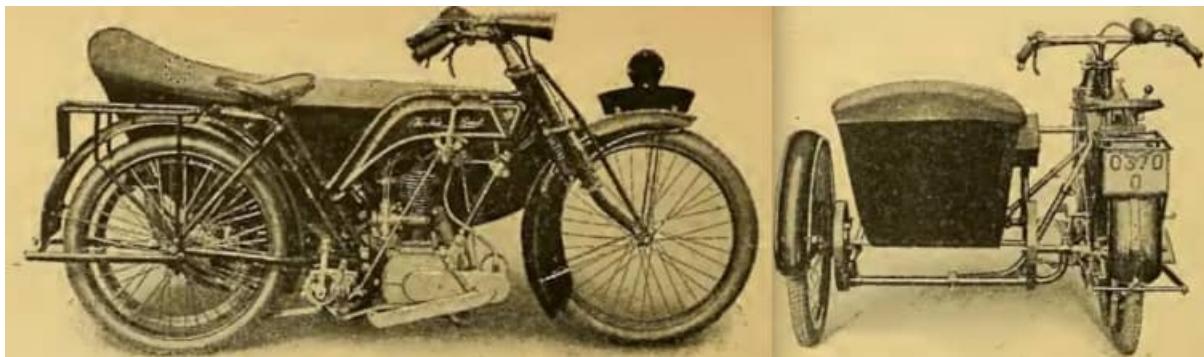
CONSIDERING THAT THE MODEL UPON which the Triumph reputation has been chiefly built is essentially a dual-purpose mount, it is a wonderful testimonial to its qualities that so many consider it to be the ideal solo machine. It is only natural, therefore, that the announcement of a sporting ohv 3½hp Triumph, exclusively for solo use, should arouse widespread interest...as anticipated, it is fitted with the Ricardo design of engine...Four inclined overhead valves are disposed in the hemispherical and detachable cylinder head, which has lugs cast on it for the

rocker gear. Cowls are situated behind the two exhaust valve stems to assist cooling, while the radiating fins have been designed with a view to most efficient heat dispersion. With this in view one of the lower cylinder fins also acts as an anchorage for the holding-down bolts. Both the head and the cylinder can be detached without removing the engine from the frame...Both the cylinder and the head are now of cast iron, but a slipper type Ricardo aluminium piston and light reciprocating parts generally are employed; the capacity is 499cc (80.94x97mm)...It is apparent at a glance that the machine has been designed for hard use, and not solely for occasional participation in a speed event by an owner who takes it there in a lorry! Finally, it must be specially emphasised that, although this model, like all Triumph productions, is of very sturdy and robust construction, it is not intended as a sidecar machine, and it is hoped that owners will refrain from experimenting with an attachment."



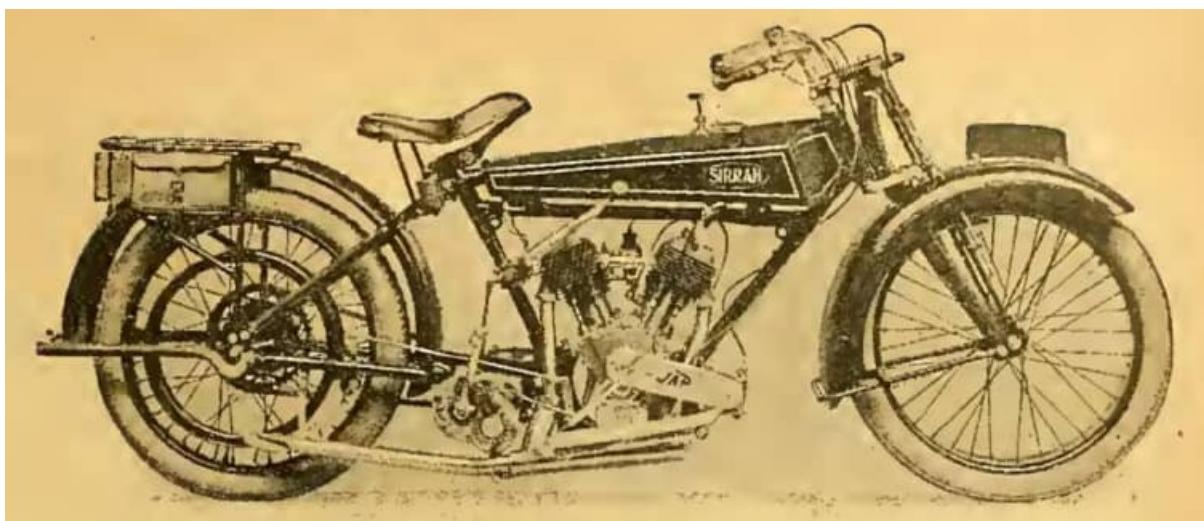
"Perhaps accentuated by the 3in tyres, there is an impression about the new sporting Triumph of strength and roadworthiness sometimes lacking on the super-sports type of machine.(Right) Cowls have been fitted behind the exhaust valve stems. This view also shows the disposition of the twin exhaust pipes and the neat detachable silencer. Both the cylinder and the head are of cast-iron."

FITTED WITH A CLIMAX ENGINE of 70x76mm bore and stroke (292cc) and a two-speed Albion gear box, with clutch and kick starter, the latest model New Comet is specially intended for ladies' use. A semi-open frame and well-guarded transmission are features that will appeal to the fair sex, while the absence of an outside flywheel obviates another possible chance of damage to skirts and long coats. Aluminium foot plates, Druid forks, 24×2½in Dunlop tyres and excellent mudguarding are included in the specification. Attached to this neat little machine is a light, but sturdy, coachbuilt sidecar, suspended on C-springs at the rear and coil springs in front. After a few miles on the road we are in a position to state that this little outfit is admirably suited for runabout purposes or for shopping trips."



"Clean lines and sturdy construction characterise the lady's model lightweight New Comet. (Right) Rear view, showing the tool box on the side member of the sidecar chassis and the wide rear guard."

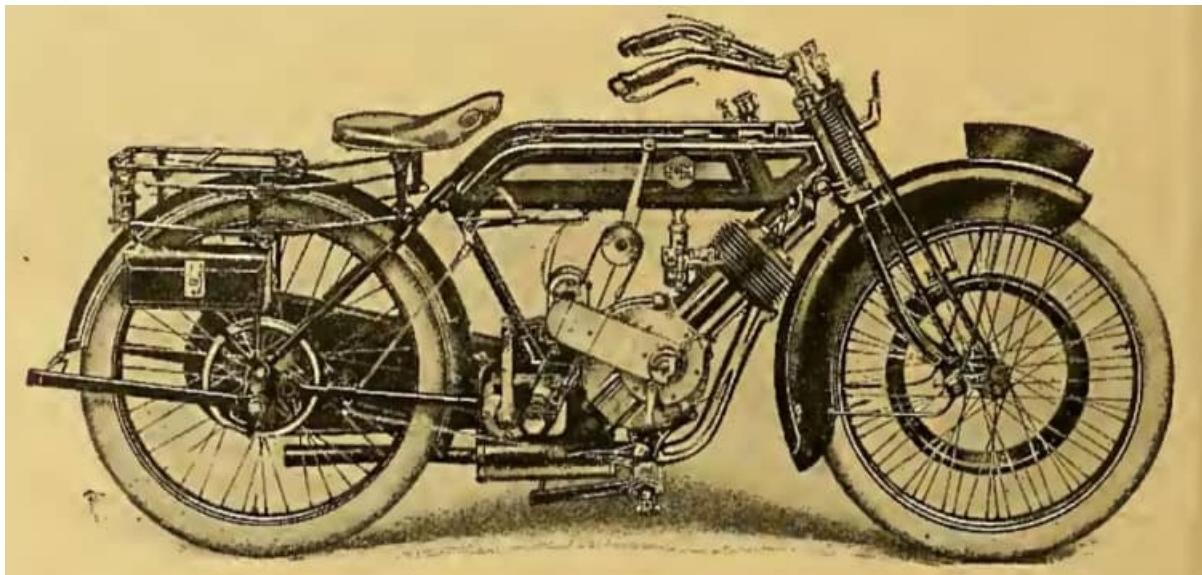
"THERE ARE FEW FIRMS WHO make a wider range of models than Alfred Wiseman, Ltd, Glover Street, Birmingham. In addition to the deservedly familiar Verus, this concern is responsible for the lesser-known, but nevertheless popular, Sirrah lightweight. It may come as a surprise to many that during this year 250 Sirrah machines of one model alone were sold. For 1922 the Sirrah range is being extended to include almost every type between the single-speed lightweight and a 5-6hp JAP-engined twin with all-chain drive and 26x3in Dunlop Magnum tyres. Intended as a double-purpose mount, the latter machine is most attractive, both in specification and appearance, and its very short wheelbase should ensure its popularity as a solo mount as well as with a sidecar. Massive but clean mudguards (8in in front), a saddle tank, Brampton forks, a Webb front brake, Sturmey three-speed gear box and final chain drive through an Enfield cushion hub are the salient features of the specification."



"Although this view shows all the main details of the 5-6hp machine, the final production model will have a much neater frame, approximately 10in shorter."

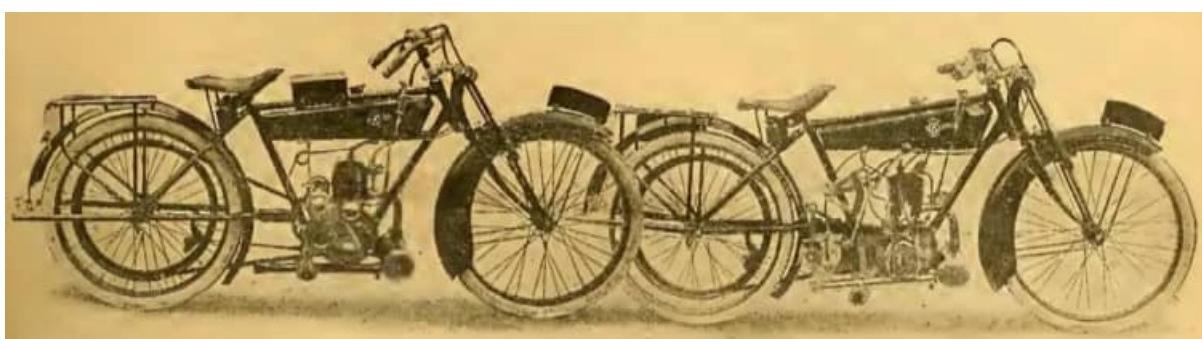
THE POLICY OF PHELON & MOORE has been a year by year improvement of an originally excellent layout; startling modifications have always been avoided, unless they were proved necessary and practical by test. However, the innovations for 1922 are considerable. In the first place, reference must be made to the four-speed gear box...A team equipped with these competed in the ACU Six Days Trials with considerable success, and since this gear was described the change speed lever has been considerably simplified in design...So far as the engine is concerned considerable alterations have been made. It has been realised that the

P&M is, and will be, largely used for sidecar work, and the engine size has consequently been increased to 84.1x100mm (555cc). The cylinder casting will revert to the old pattern, with radiating fins at right angles to the centre line of the cylinder; the fins, however, are considerably deeper, and they are now cast on the cylinder head, increasing the cooling surface...The engine is now absolutely oil-tight, and has an exceptionally clean appearance, while the timing case is circular and contains a new and simplified timing gear."



"The 1922 model P&M, which is now fitted with a four-speed gear box and a larger engine having a cubical capacity of 355cc. A Brooks cantilever spring saddle is fitted as standard."

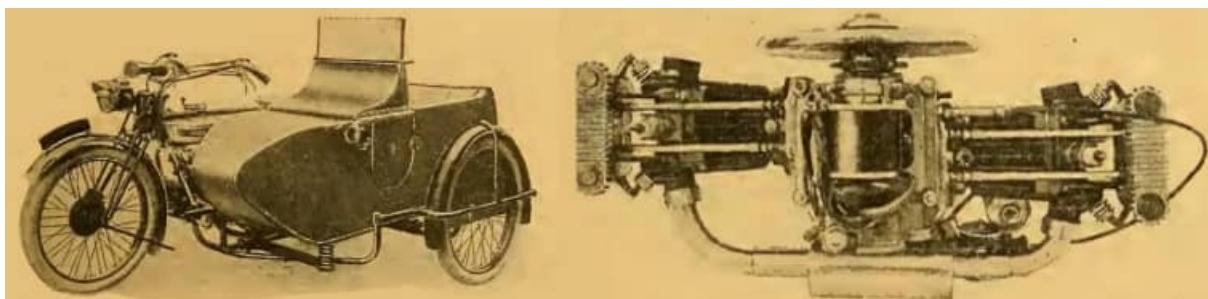
"THE MAKERS OF THE OK JUNIOR machines (Humphries and Dawes) must rank among the pioneers of the lightweight sidecar movement and as one of the little OK outfits gained special mention in the judges' report of the Six Days Trials, considerable interest centres in the details of the 1922 edition of this model. An OK engine, which has a bore and stroke of 70x76mm (292cc), only will be fitted to the sidecar outfit, and, with an Albion three-speed gear box with clutch and kick-starter, it makes an economical, handy, and capable little passenger machine...an entirely new departure for next year will be a three-speed all-chain drive sports machine, also with an OK engine...The extremely popular single-geared OK has not been altered to any appreciable extent, although an OK or Villiers engine is optional."



"Perhaps the most popular of the OK range is this single-geared lightweight, which may now be fitted with the maker's own engine. (Right) A similar model, with an Albion three-speed gear box."

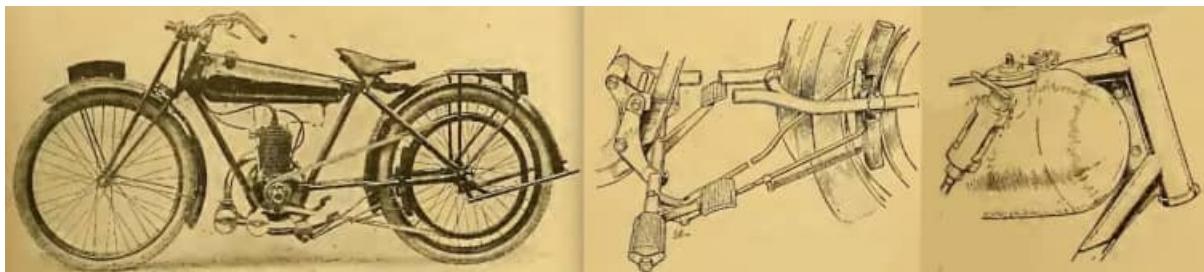
"A SIDECAR OUTFIT WHICH, IT is claimed, will exceed 60mph, is the chief addition to the Douglas range of motor cycles for 1922. Although new to the public, this machine has been on

the road for many months, and we have heard very good accounts of it from various sources. We have also seen it perform when in its 'hush, hush' disguise, and long ago we had formed the opinion that, when marketed, it would be a worthy addition to the short list of really fast machines produced in this country. Having a bore and stroke of 83x68mm, the piston displacement of this new engine is 733cc...The new 6hp unit embodies the overhead valve arrangement, now well-known as a feature of the smaller machine, and which, it will be recalled, includes a unique system of, wick lubrication for the rockers contained in aluminium boxes over the cylinder heads."



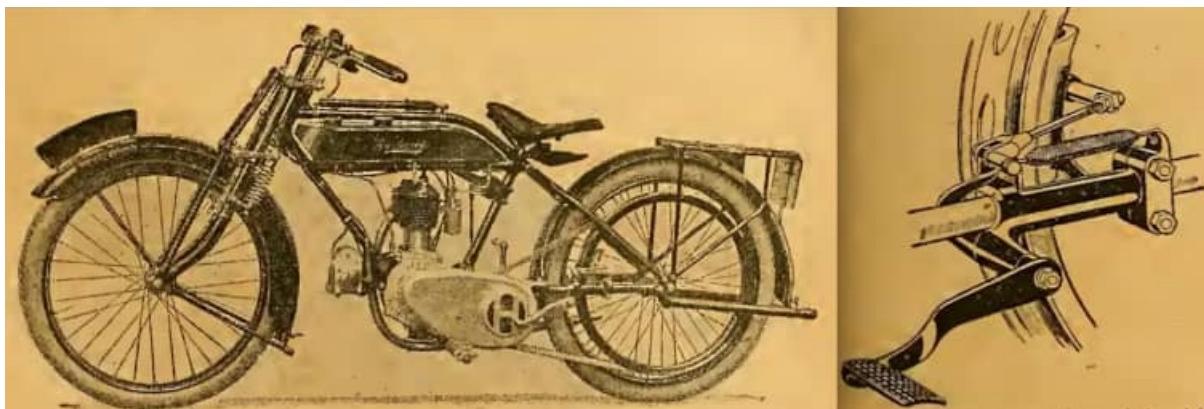
"Over 60mph has been attained by the new 6hp Douglas sidecar outfit, which is fitted with an engine on the same lines as the '3½'. (Right) The flat twin 6hp Douglas, of 733cc."

"ONE OF THE MOST INTERESTING LIGHTWEIGHTS which has yet been produced is the latest model Sparkbrook, to be known as the 'Spark'. Primarily intended to be produced in quantities at a low figure, it is the frame construction which rivets attention. At first sight it would appear that a loop frame of normal construction is employed, but a closer scrutiny reveals many unusual features. To begin with, pressed sheet steel lugs are used throughout. Even the head lug, a particularly fine piece, of work, is a one-piece pressing, welded at the edges of the webs. The main frame consists of the head, tank rail, and a loop member, to which stout pressed steel engine bearer plates are brazed. Bolted to the rear engine bearer plates are the chain stays, the back stays being detachable from both chain stays and seat tube. These stays have flattened, ends, but are reinforced where the swaging takes place by stout inner liners of steel tube...Footrests are carried from the engine plates, and on the cross-bar are mounted a pair of brake pedals, one on each side of the machine. These pedals operate Ferodo shoes in the belt rim, one being placed above the chain stay and one below. All brake gear is arranged in such a manner as to clear a gear box and primary chain should such a device be fitted...Again composed of pressings, the tank is of tubular section, with a recess along the top to fit snugly round the tank rail projecting lugs are formed at each end, which bolt up to the steel webs of the head and seat-pillar lugs. Before joining up the two tank pressings a steel bottle is inserted, and this serves to contain lubricating oil. The cap of this bottle is screwed down on to a leather washer, so as to be absolutely air-tight, and carries a ball non-return valve and an adapter to suit a normal tyre pump. A tap and sight-feed arrangement are fitted to the neck of the bottle. Thus, after filling up with oil, a few strokes of the tyre pump will supply sufficient pressure to empty the tank of oil gradually when the tap is turned on. It has been found in practice that the oil compartment is so completely air-tight that, even after several days, or even weeks, no diminution of pressure is traceable. Sensible mudguards, a sturdy little carrier and good quality saddle are included in the specification, and the finish is black, with Sparkbrook green tank and flywheel cover. The well-known Sparkbrook lightweight models will continue to be sold either with single gear, two-speed, or two-speed and kick starter; and, in addition, a new model fitted with the 350cc JAP engine and a three-speed gear will be listed."



"A light and reasonably priced two-stroke—the Spark, a machine fitted with Villiers engine and flywheel magneto. Sparkbrook engine plate and rear brakes. Head lug, tank fixing and lubrication details."

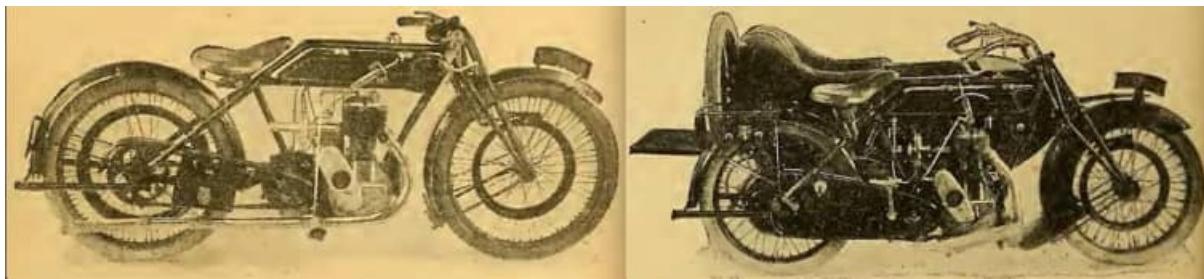
"A LIGHTWEIGHT WILL BE ADDED to the existing range of Hazlewood models for 1922. Carried in a frame with dropped top tube, a 293cc JAP engine drives the rear wheel through a two-speed Sturmey-Archer gear with clutch and kick starter, the final drive being by belt. Aluminium foot plates, a cast aluminium chain cover, B&B carburetter, and Best and Lloyd drip lubricator are included in the specification."



"The new lightweight Hazlewood incorporates the 293cc JAP engine, and has a serviceable black finish. (Right) The rear brake unit of the new lightweight Hazlewood is easily detachable to facilitate wheel removal."

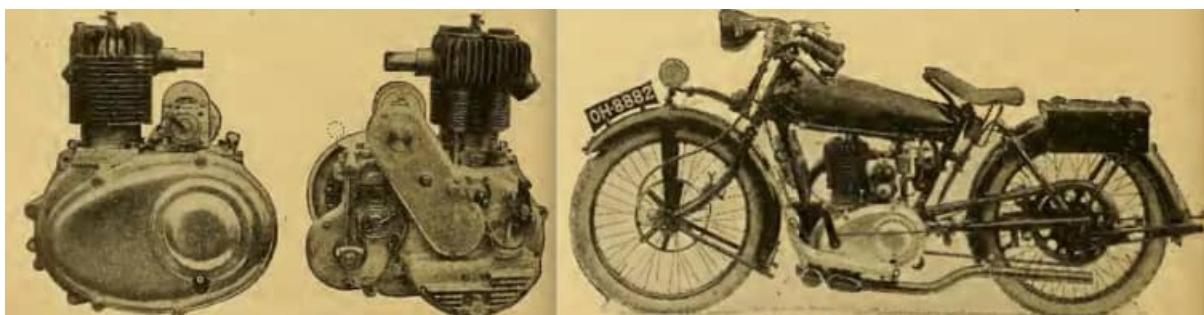
"ONE YEAR'S TT MODEL VERY OFTEN becomes a next year's sports model, but Messrs. John Marston, Ltd have gone one better, and now offer to the public their 1922 TT motor cycle, which has an entirely new long-stroke (77x105mm) 489cc engine and a long-wheelbase frame. This machine embodies all the lessons of past racing experience, and has been on the road for a considerable period in the hands of TC de la Hay and George Dance, who inform us that without the special tuning which every Tourist Trophy mount receives, it is several miles an hour faster than the machine which won the 1920 Senior TT and this year's French Grand Prix. That is the Sunbeam offering to speedmen for 1922. There is, however, a large coterie of Sunbeam enthusiasts who drive sidecars, and who, up to the present, have had the choice of the 3½hp outfit and the 8hp JAP-engined twin. A long-stroke 4¼hp 590cc machine has now been introduced, which is a worthy addition to the big single sidecar outfits on the market. It has 650x65mm tyres, detachable wheels, internal expanding rear brake, leaf spring fork, wide mudguards and all the appurtenances of the fully equipped sidecar outfit...On trying the new sidecar model on the road, we enjoyed a new experience in sidecaring. It was like driving a twin with the beat of a single. The comparatively low compression renders it almost as flexible as a twin, and, fully loaded, one may drive at speeds between 30 and 35mph up hill and down dale for miles on end. The maximum speed is probably in the neighbourhood of 45mph...At all speeds the steering is delightfully light and one may release the handle-bars without any

tendency for the wheel to leave the direct track. One's first impression of the new TT model conjures up the simile of the thoroughbred racehorse, as compared with the more robust hunter, to which the 1920 sports model approximates...An aluminium single-ring piston is adopted, and this, in conjunction with the other light reciprocating parts, gives the engine remarkable acceleration. The transmission is by chain through a close ratio Sunbeam gear box without kick-starter; but the little oil bath is only fitted to the primary drive, the rear chain being protected only by a light guard...the machine is a true sporting mount. It is capable of lapping Brooklands at 70mph, and is as flexible, as silent, and as docile as a modest tourist type.



A new super Sports Model, with long-stroke engine of 77x105mm; no carrier or kick-starter is fitted. (Right): A long-stroke 596cc big single for sidecar work.

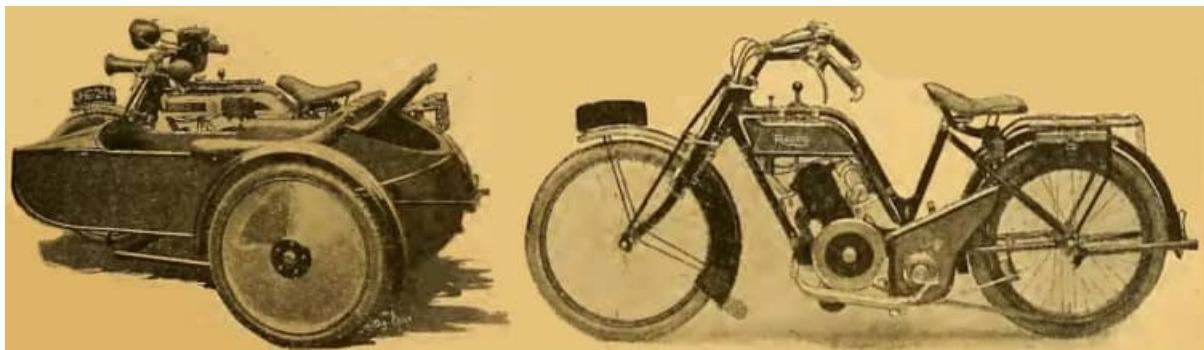
"THE 350CC TWO-STROKE BEARDMORE-PRECISION being now firmly established on the market, Mr FE Baker has once again given his mind to the production of the big single four-stroke. In spite of the fact that the pre-war 4½hp Precision was sold overseas in greater quantities than at home, there are still many admirers of that popular engine in this country who have been looking forward to the appearance of a post-war Precision four-stroke. Founded on the main essentials of the old '4½' the new 597cc engine is a combination of the most up-to-date practice with the results of years of practical experience. To begin with, the engine is lubricated automatically by a mechanical pump and, though a simple supply adjuster is provided, once this has been set the driver is relieved of all further worries. Again, the engine, gear box, and magneto form a single unit, the crank case and gear box being cast together. At the same time, the two units are separated by the walls in such a manner that, but for the constructional advantages, they might as well be two entirely separate units. The mechanism of each is inspected through separate end plates, and no particles of foreign matter from one unit can affect the working of the other.



"Driving and timing sides of the combined engine and transmission unit; the cylinder is of 597cc capacity, and the gear has three speeds with clutch and kick-starter. (Right) Transmission side of the new 4½hp Beardmore-Precision; note the rear springing and upcurved footboards."

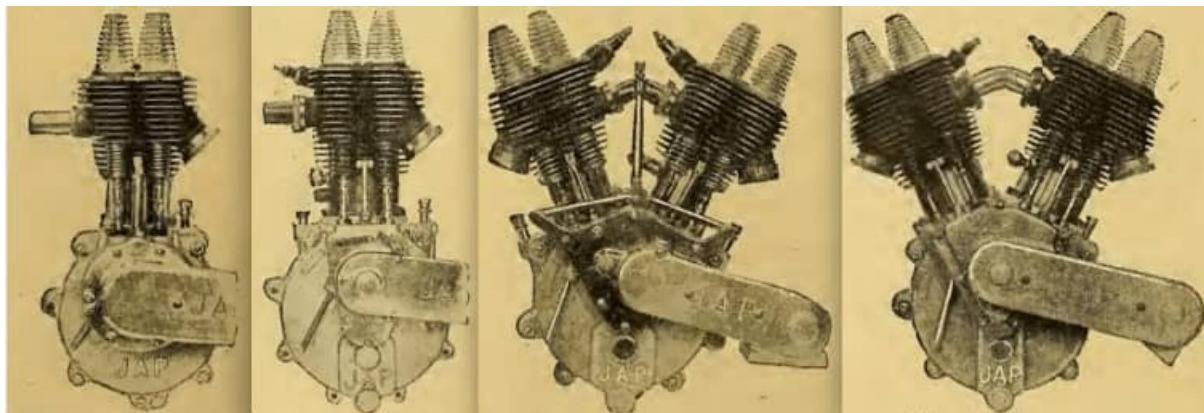
"THE MOST IMPORTANT ALTERATION to the Radco models lies in the fact that the bore and stroke of the engine have been increased to 57x70mm (247cc)...This machine may be obtained either single-gearred, or with plain two-speed, or with clutch and kick-starter. Fitted with a very

neat sporting sidecar, the little machine is one of the lightest forms of passenger machine in existence, and for dual work a three-speed Burman gear box is recommended...The lady motor cyclist who desires an open frame mount has not been forgotten, nor has the need for adequate dress guards on this type of machine. A neat design of frame has been evolved, and, by inclining the engine, it is kept well out of the way of the rider's skirts without being inaccessible. A metal shield extends downward from the tank in the rear of the engine, and both belt and primary chain are similarly adequately protected. A Burman lightweight two-speed gear box, with kick-starter—a commendable feature on a lady's mount—is fitted."



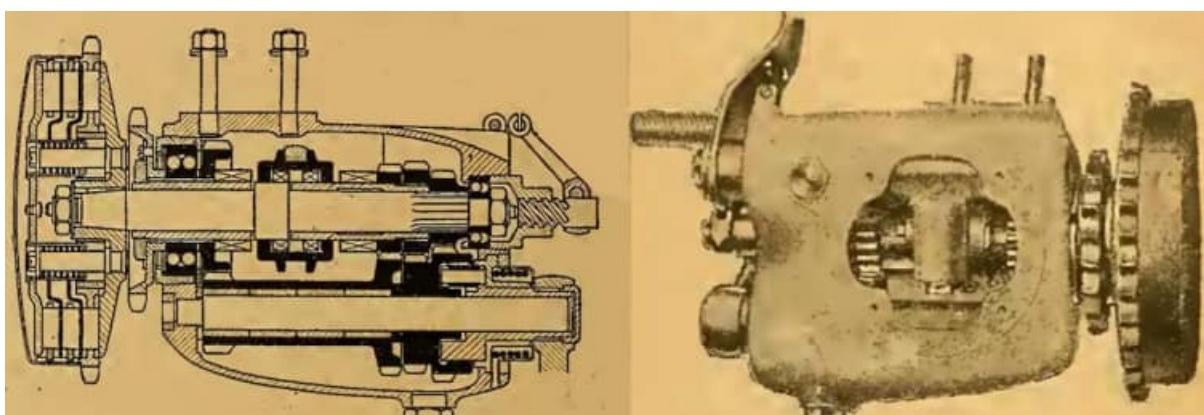
"The 2½hp Radco lightweight outfit is distinguished by a sporting little sidecar, possessing good luggage accommodation in spite of its light weight. (Right) Ample dressguards, a low riding position, and a kick-starter make the open frame model suitable for the lady motor cyclist."

THE FULL RANGE OF JAP ENGINES for 1922 will consist of no fewer than ten different models. The makers, JA Prestwich and Co, are particularly anxious that their engines should be known not by their horsepower, as this, of course, is an unsatisfactory term, but by their cubical capacity measurements. The range will be the 250cc, 293cc, 350cc standard, 350cc sports, 550cc, 500cc twin, 680cc twin, the 986cc standard, and the 986cc sports; there is also the 986cc water-cooled twin. Several of these are completely new models. Take, for example, the 350cc sports model, which came into being just before the TT races. Unlike several other motor cycle engine manufacturers, those responsible for JAP engines have pinned their faith to the side-by-side valve layout, and have obtained wonderful successes during the past year. The 250cc engine this year won the *Motor Cycle* Cup in the TT, the Grand Prix, all Class A records, won its class in the 500 Miles Race, the Gaillon Hill-climb, and the recent world's records in the Paris Speed Trials. It is fitted with side-by-side valves, and it is hoped that it will attain 80mph. Such a speed from a 250cc single-cylinder is almost incredible, more so since it is equal to the guaranteed speed of the big 8hp twin-cylinder sports model already referred to. Although 80mph may seem a vain hope, the makers nevertheless are ready to demonstrate that this wonderful little 250cc engine is capable of turning over at the hitherto unthinkable speed of 10,000rpm."



From the left: "The new 250cc JAP unit. It has an oil spray for the valve stems, the die-cast 'fir cone' valve cap radiators, heavy radiating fins, and an improved timing cover. The 550cc JAP single cylinder. Note the new position of the sparking plug and the oil spray for the valve stems. A V-twin of 500cc, composed of two 250cc single cylinders; the exhaust valve lifter is of the external variety, once popular on all JAP products. A big twin sports model, specially suitable for speed mounts. It has roller bearing big ends and ball bearing mainshaft."

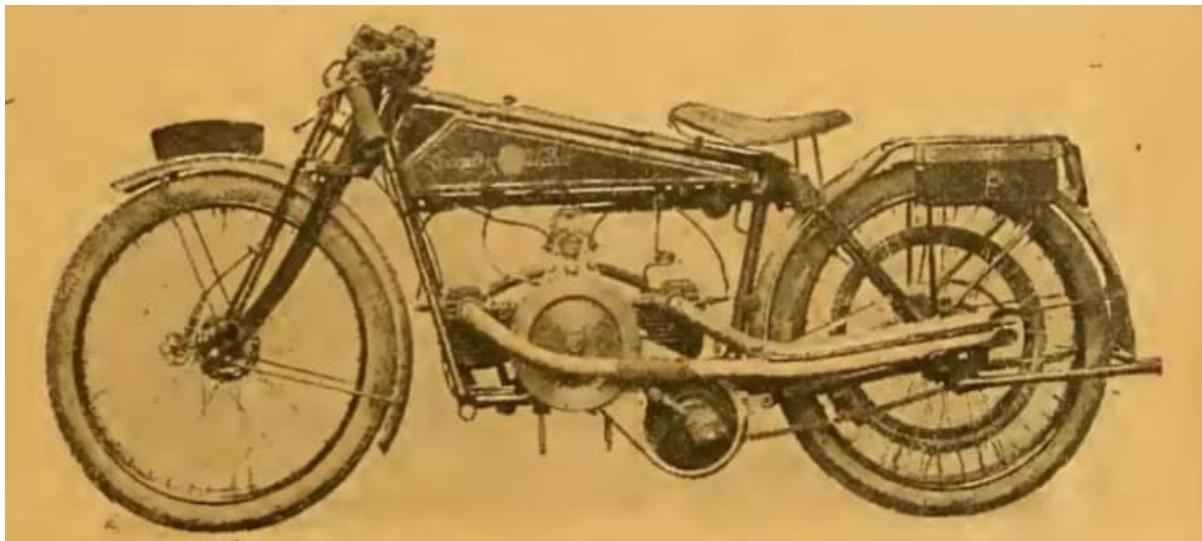
"IT SHOULD NOT BE NECESSARY nowadays to enlarge On the advantages of the four-speed gear box compared with the three. It is generally admitted that the extra ratio is beneficial from all points of view, and on all types of machine; but, on the other hand, it is claimed that the disadvantages of extra weight, bulk, complication, and expense do not merit the adoption of four speeds for motor cycle use. Jardine, of Deering Street, Nottingham, have gone all out to prove that the latter school argue on premises that do not exist; and their new four-speed gear box—their only model in future—is certainly less complicated than many a present day three-speed model. Only in the very ingenious method of obtaining the four ratios with but one sliding dog and no sliding pinions does the box resemble any previous product of the firm; otherwise it has been entirely redesigned on modern lines by a pioneer designer of motor cycle gears, Mr Cohen, and it represents two years' intensive experiment and labour...One of the layshaft pinions also acts as a kick-starter pinion, thus leaving only eight gear wheels in the box; incidentally, we are informed that a master patent is held on this scheme of starter operation. The weight of the box complete with controls is 34½lb."



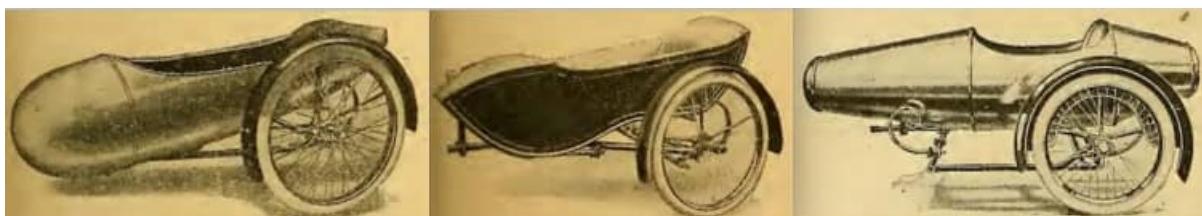
"General arrangement of the Jardine four-speed gear box. (Right) Exterior view of the complete box with inspection door removed."

"BEFORE WINNING THE 750CC CLASS in the 500 Miles Race at Brooklands, the 5-7hp Coventry Victor had a useful reputation as a reliable and smooth-running double-purpose mount. Now that it has proved also to have a very useful turn of speed, it should meet with much success

amongst the more sporting section of the fraternity as well as amongst the tourists who simply admire the absence of vibration characteristic of the flat twin. For next year what is to all intents and purposes a replica of the successful racing machine will be marketed as a standard sports model. Reasonable mud-guarding and a cover for the primary chain are the chief deviations from the specification of the track machine; and, as this model is of the short wheelbase type, it strikes one as a most attractive solo mount."



"All the characteristics of a successful sports model are embodied in this '500 miles' Coventry Victor."



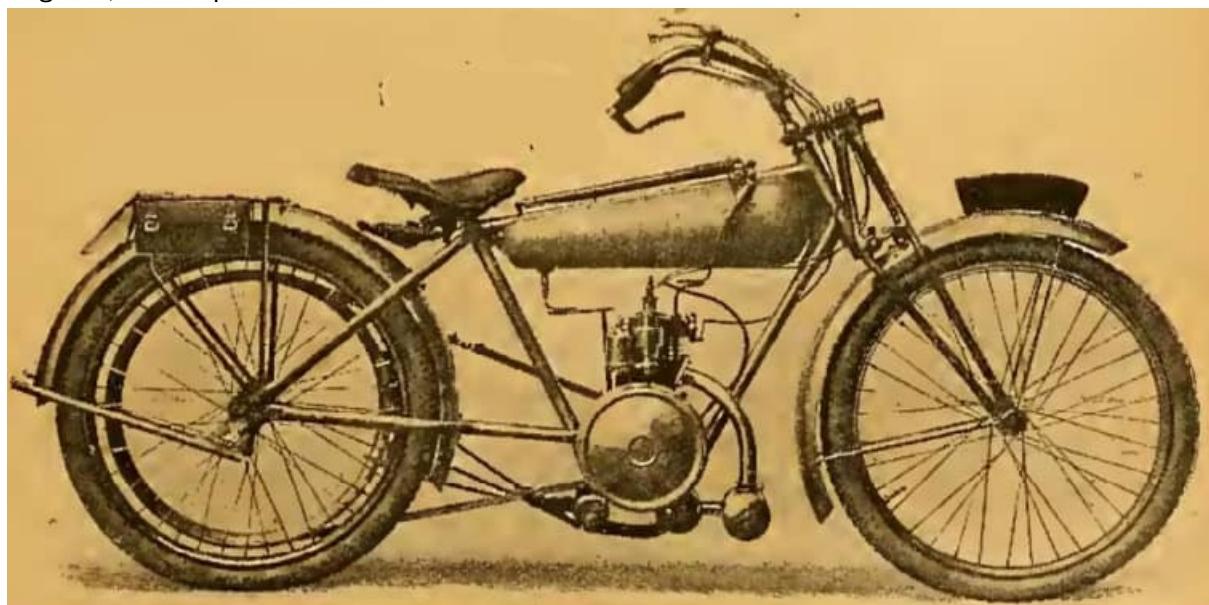
Sidecars for tiddlers (from the left): Watsonian featherweight, "which, with polished aluminium body, weighs but 60lb; Montgomery ultra-light sidecar; the Dunhill, of projectile shape in polished aluminium".



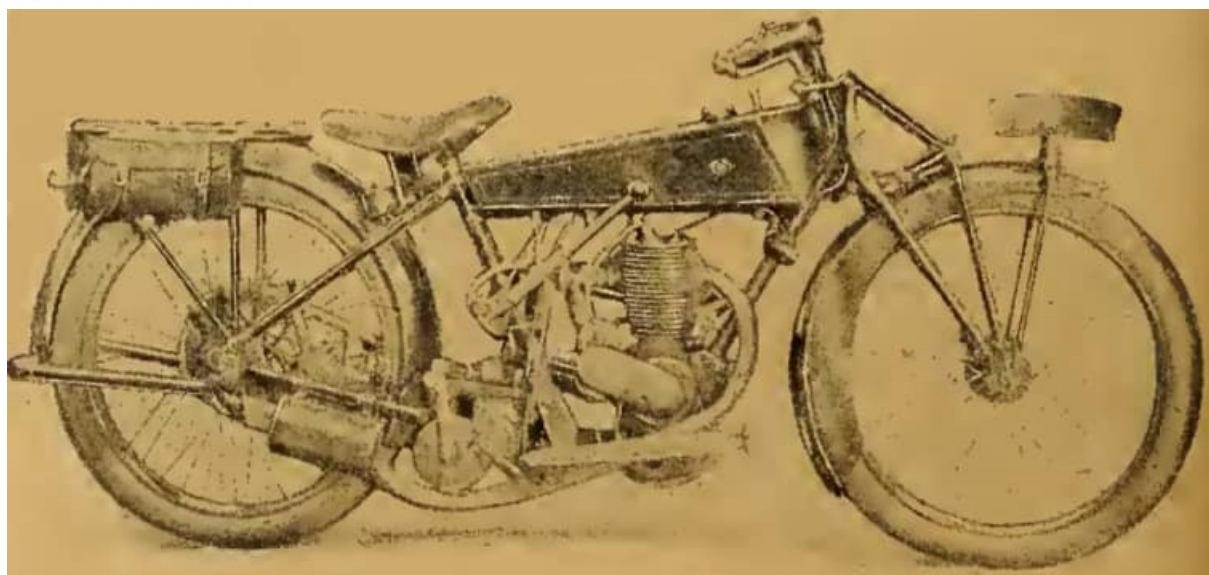
Sidecars for sportsmen (from the left, as indeed is the editor): "Streamline boat-built sidecar body in cedar and mahogany by Berthon Boat Co. A sporting streamline aluminium sidecar for attachment to the Scott Squirrel. A new design of sporting sidecar on the 1922 Rover. Martinsyde 'torpedo' sidecar in aluminium."



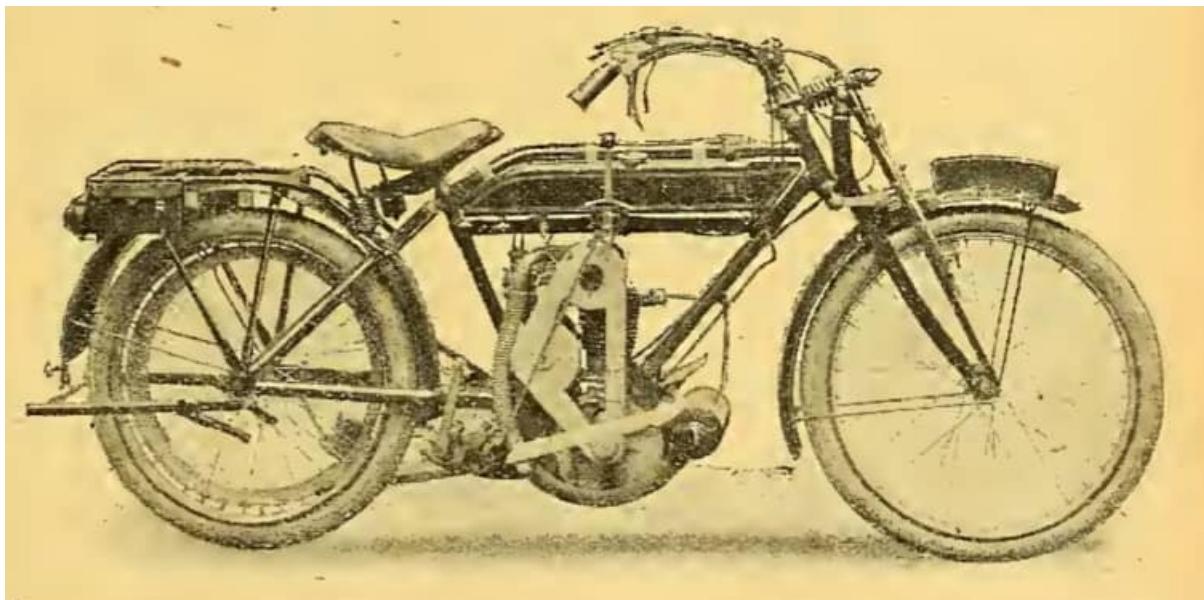
Ariel launched a brace of debuts in time for the 1922 season: a 499cc sportster with three-speed box (but no kickstarter) and an enclosed, lubricated primary; and for family men an 8hp MAG-engined, three-speed combo.



The Scots were quite capable of producing motor cycles: the Victoria hailed from Glasgow, though its 2½hp Villiers lump was imported from Wolverhampton. As standard it featured direct drive but a two-speed box was an optional extra; well-heeled commuters could even have a clutch and a kickstart.

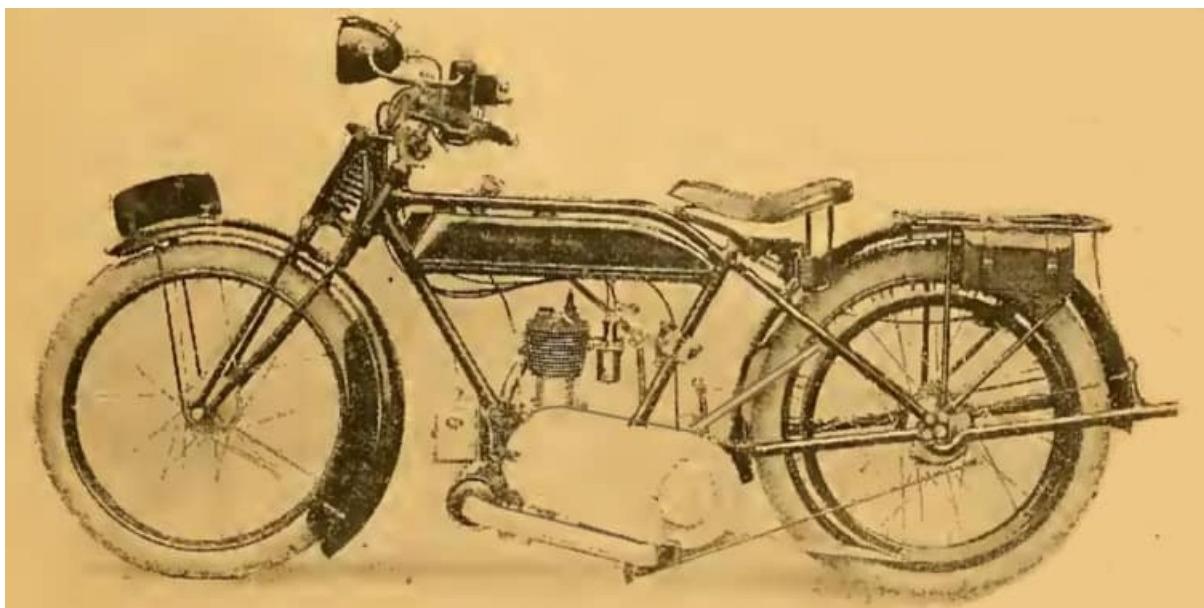


Glasgow was also home town to the Royal Scot, made by Messrs Donaldson & Kelso, who didn't have to look south for an engine because Glasgow engineers Barr & Stroud had just produced a 350cc sleeve vale engine. Other equipment included Montgomery-style forks, a Burman three-speed box and drum brakes.



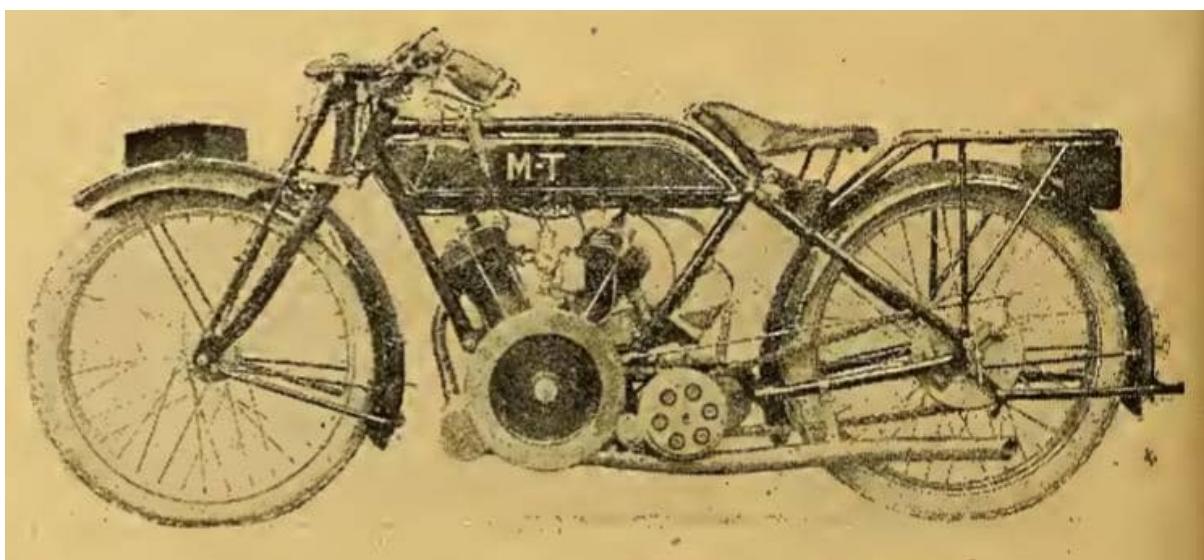
"Combined overhead rotary and poppet valve gear, driven by roller chain, distinguishes the Gri engine, which is a Scottish production. In place of the conventional type of valve mechanism the flow of gases is controlled by a rotary distribution valve working in conjunction with a single compression retaining poppet valve. Great simplicity is obtained by mounting the cam for the latter on the rotating valve, which is driven by a single enclosed chain. This chain also drives the magneto."

"THOUGH PRESENTING NO GREAT NOVELTY in construction, the 2½hp Wigan-Barlow is well worth careful study, since it incorporates several items unusual in so light and moderately priced a machine. A 293cc JAP engine is the power unit employed, and transmission is by protected chain to a two-speed Albion gear box with clutch and kick starter. Final drive is by belt. Front springing is effected by a Maplestone fork, and Webb internal expanding brakes are fitted front and rear. In addition to the usual aluminium footboards, carrier, etc, the front guard is valanced behind the fork, and 26x2in. tyres are fitted, which will add very considerably to the rider's comfort, and will minimise tyre troubles. The manufacturers, Wigan-Barlow Motors, of Coventry, are also contemplating the construction of a somewhat similar machine fitted with the 350cc Barr and Stroud engine."



"A neat looking lightweight, the Wigan-Barlow, embodying an M-L Maglita ignition and lighting set as standard."

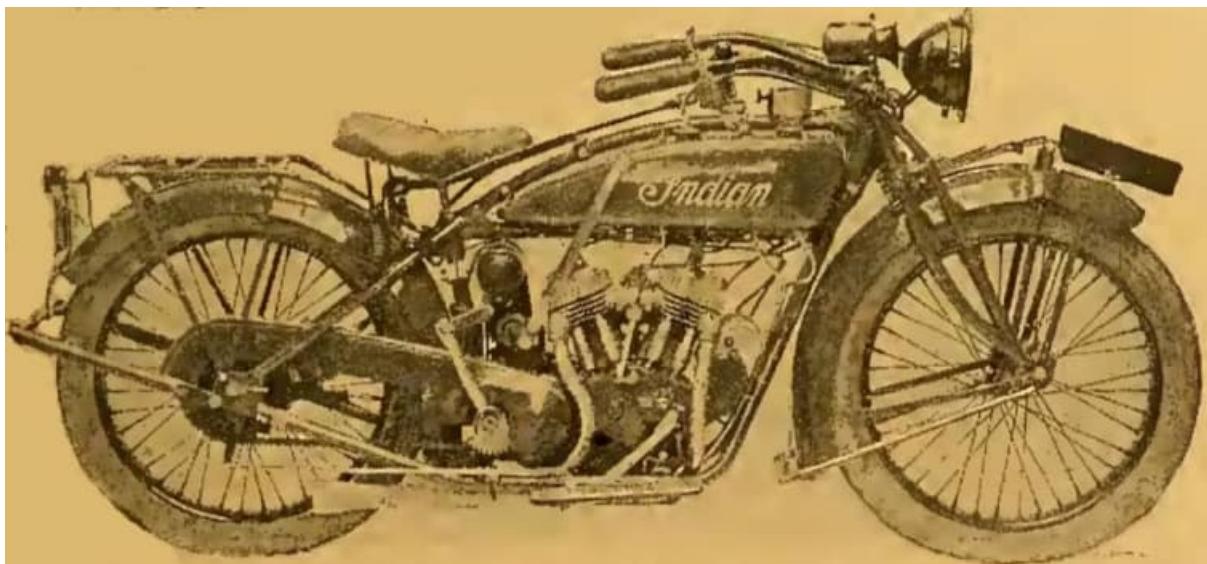
"AMONG THE SEVERAL FIRMS which have turned their attention to the sporting twin-cylinder may be mentioned the Metro-Tyler Co of London W1O. Their latest production consists of a 5-6hp twin fitted with a Blackburne engine, 71×88 mm. (698cc). It is provided with all-chain drive and a Burman three-speed gear box and kick-starter. So as to facilitate tyre repairs to the back wheel a withdrawable spindle is fitted...The machine has a short wheelbase, low riding position and wide handle-bars giving adequate steering control. An Amac carburettor and BTH magneto are fitted; the machine...should be a thoroughly useful high-speed touring mount. Special mention must be made of the roomy toolbag placed at the back of the carrier, and fitted with a lid provided with an ingenious fastener."



"A new V twin Metro-Tyler, which marks another entry into the big solo class, is a 5-6hp Blackburne."

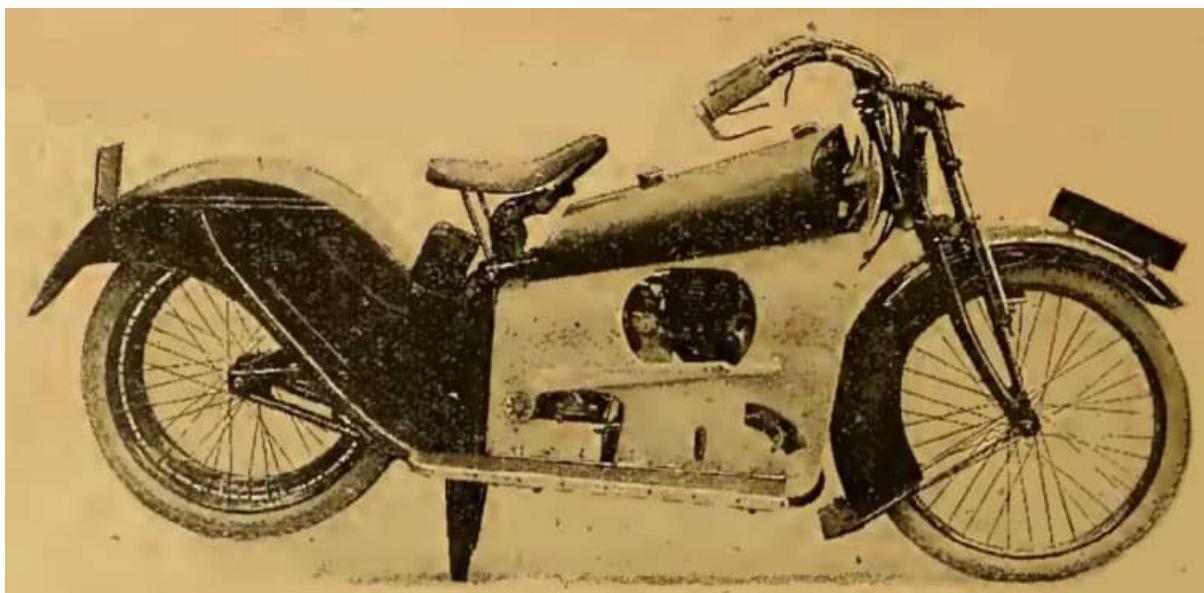
"AFTER THE SCOUT THE CHIEF. Rumours via the American papers have warned us to expect something good in the new Indian Chief, and Indian enthusiasts will certainly not be disappointed. This new model is bristling with good points and is a very fine production. The

new engine has the same dimensions as its predecessor—79x100mm, 980cc—but the design of the cylinders is similar to those of the engine with which the principal Indian records have been made during the present season...A new design of Split doit magneto and a separate Split dorf dynamo are fitted."

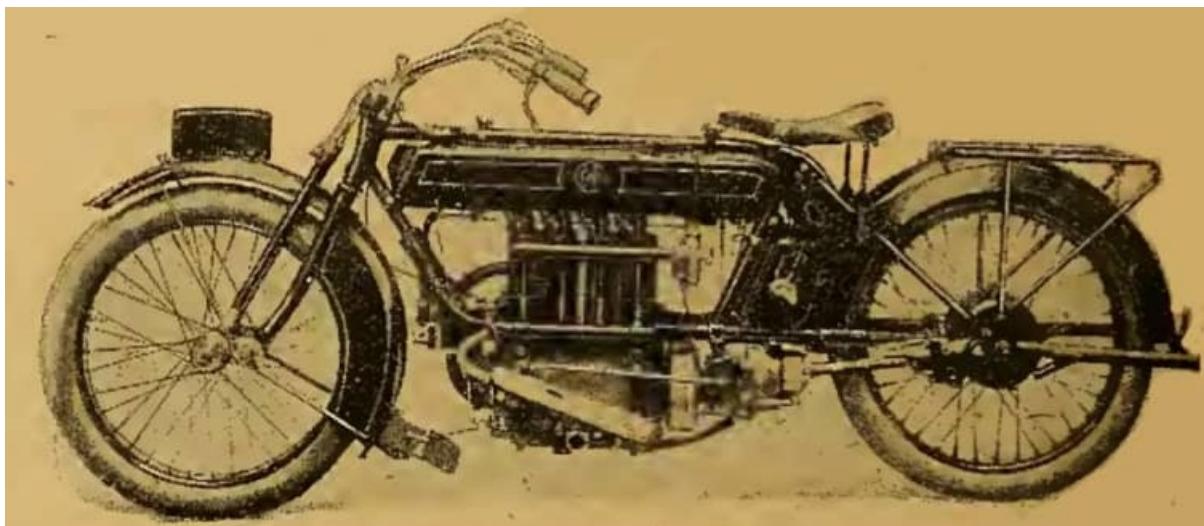


"An addition to the Indian range of machines—the Indian Chief—an enlarged edition of the 4hp Scout."

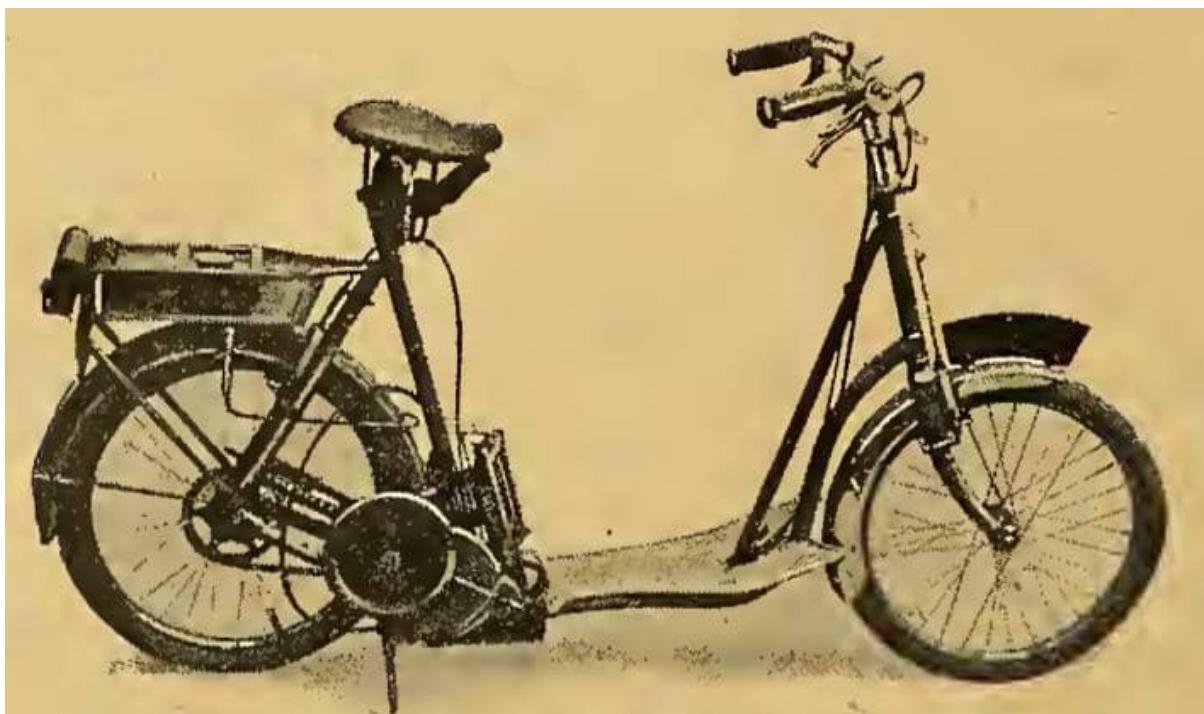
"THE HAGG HAS NOW FULLY PASSED its experimental stage. The mechanism is almost entirely enclosed by means of aluminium plates, which not only serve to enclose the moving parts, but act as efficient windshields. Pressed steel enters largely into the construction and is employed in the tank, rear forks, and rear mudguards, which enclose a very large portion of the back wheel. The frame, incorporating the engine cradle, gear box carrier, and under shield, is made of heavy tubing, while the rear wheel is sprung by means of a single leaf spring. The engine is a 350cc Precision two-stroke, driving through a foot-operated Burman two-speed gear box. The engine is started by hand by means of a long lever attached to the usual kick-starter spindle. The Hagg may be used not only as a solo mount but as a tandem, the passenger being carried on an aluminium bucket seat sliding in grooves attached to the valances of the pressed steel rear mudguard. A low centre of gravity should ensure absence of skidding."



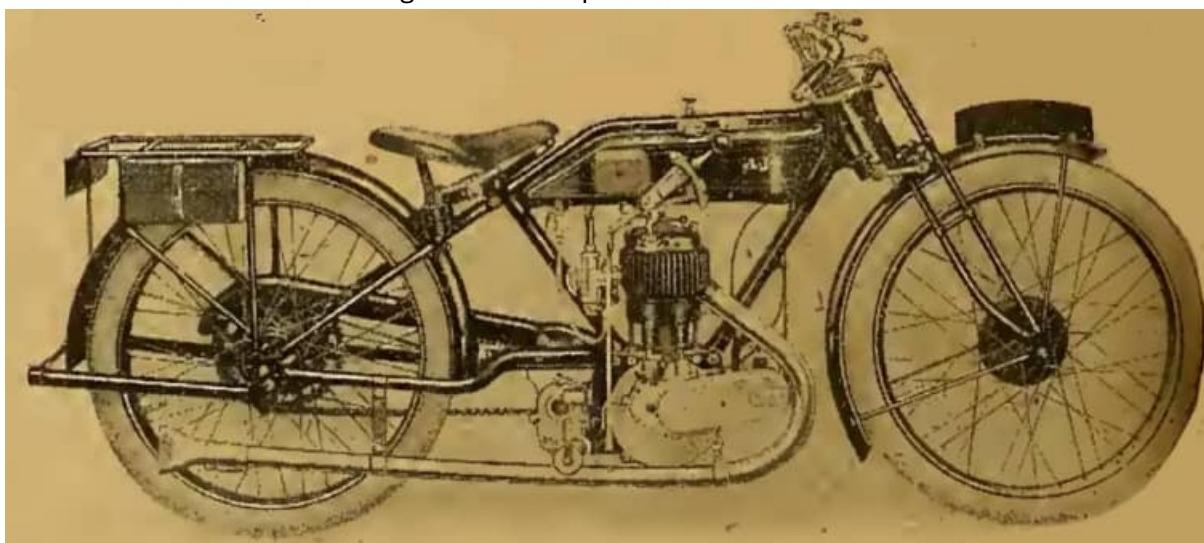
"Among the many novel features of the Hagg motor cycle, the pressed steel rear forks call for notice."



FN fielded an ohv version of its in-line four in the 1914 TT; for the 1922 season an improved 8hp version joined the range, alongside the 7hp sidevalve and IOE 2 $\frac{3}{4}$ hp single.

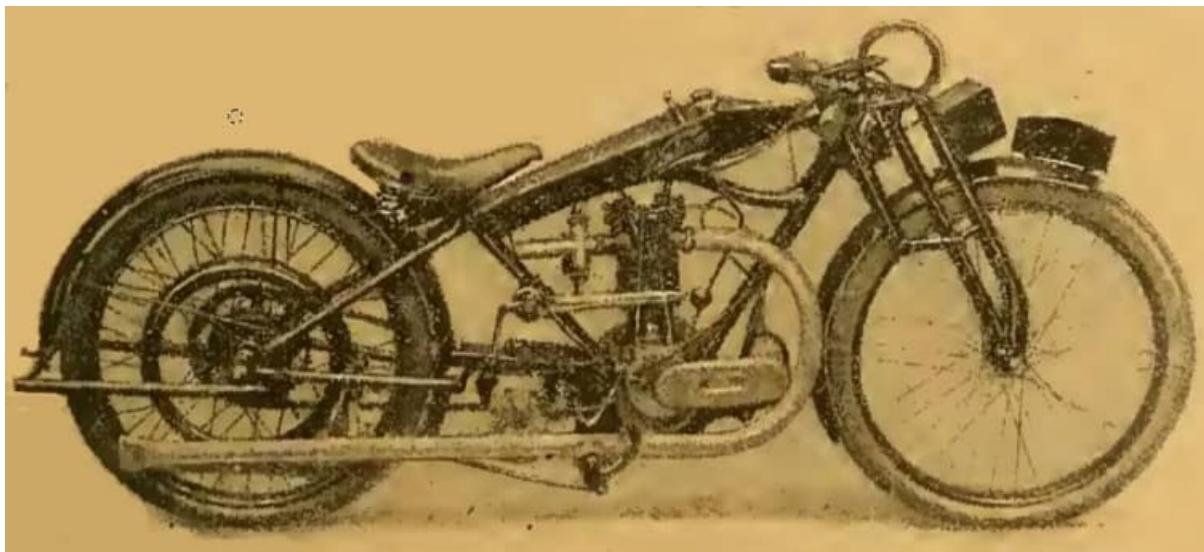


"A little machine, mainly intended for runabout purposes, the Hack miniature should prove of value to nurses and others to whom ordinary cycling has been found fatiguing. Its weight is 75lb. It is fitted with aluminium footboards, down the centre of which runs a groove carrying the control wires to the unit. The engine is the Simplex two-stroke."



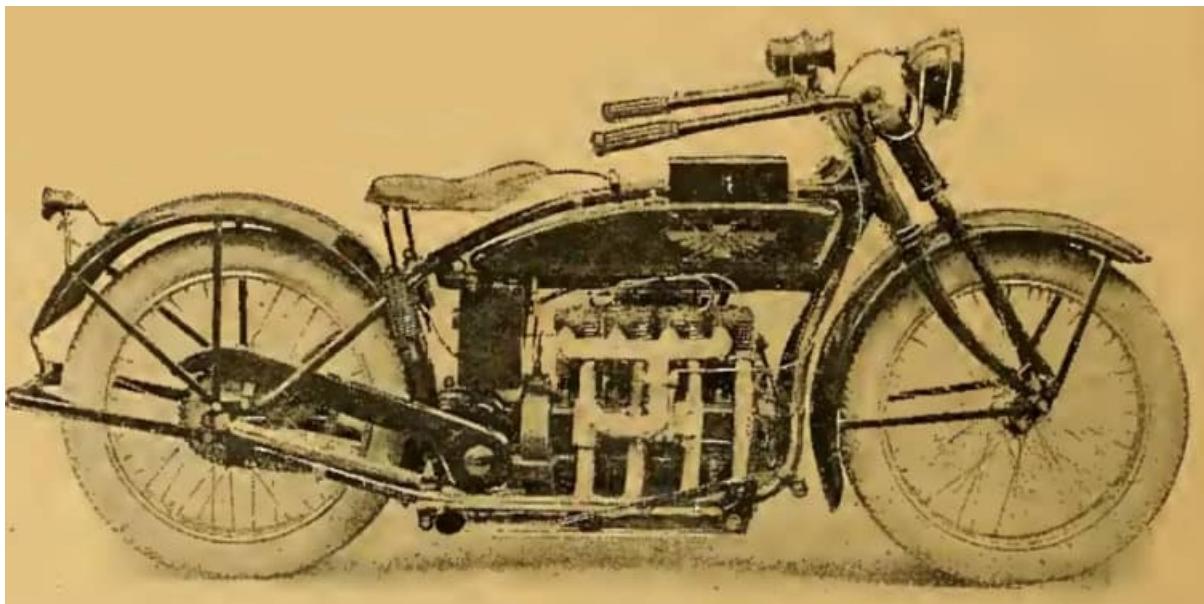
AJS expanded its range with a 2¾hp model available as a tourer, 'standard sports' or, pictured, a stripped down 'speedman's mount' with no kickstart, 'racing mudguards', lightweight chainguard and QD carrier.

"IN ADDITION TO A RANGE OF Henderson sidecars for which this Sheffield firm is now well known, two new models of the Sheffield-Henderson motor cycle will be exhibited; one of these will be engined with the 2¾hp ohv Blackburne engine, and having a frame of rather unique design, which gives an exceptionally low riding position. This new mount, which is to be sold purely as a sports model, will carry with it a guarantee of 70mph. A Sturmey-Archer three-speed gear with close ratios and without kick-starter, forms part of its equipment. The other model is a dual purpose machine having the new 4¼hp Blackburne engine of 550cc."

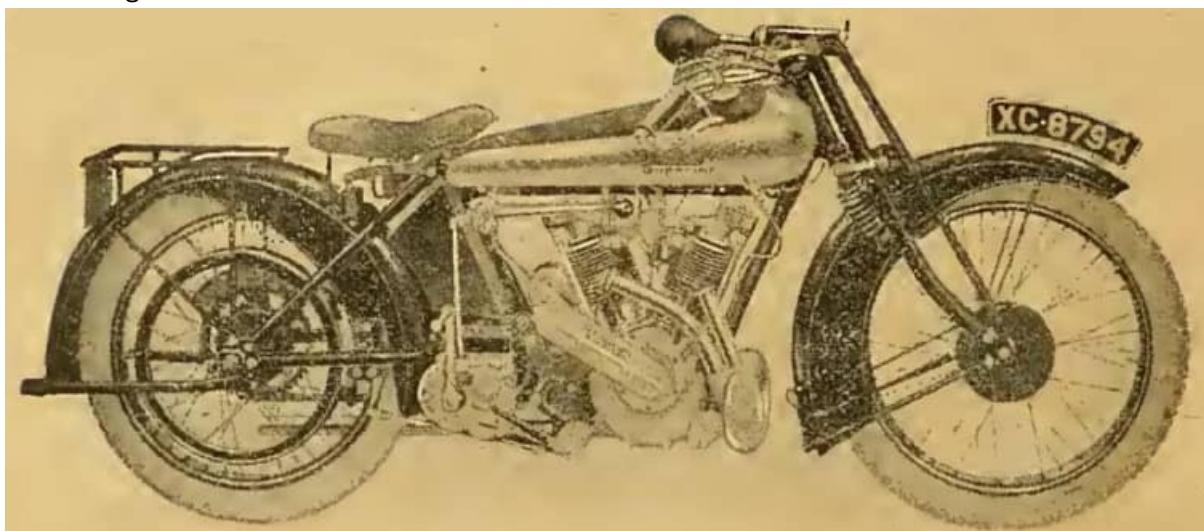


"Although a trifle unconventional in appearance, this model of the 2¾hp ohv Sheffield-Henderson-Blackburne has already won its spurs in the big speed trials."

"A FOUR-CYLINDER MOTOR CYCLE always arouses interest, but, apart from this, the latest model Henderson, a make of machine which has been known in this country for some years, is a thoroughly attractive mount. The new model has the 1,301cc engine placed lower in the frame and more rigidly held, and the four straight-down exhaust pipes are led into an expansion chamber. The carburettor is a Zenith, provided with a hot-air muff, and the valves are now of the side-by-side pattern. The method of mounting the lighting dynamo immediately above the magneto, both units being held by the same clamping arrangement, is particularly neat. Lubrication is effected by a rotary oil pump, which forces the oil to the main bearings through a hollow crankshaft to the big end bearings, following automobile practice throughout; the same system is employed to lubricate the clutch bearings. The Henderson is one of the few machines which can be fitted with a gear box giving a reverse, which is undoubtedly an advantage when a sidecar is used. This reverse is an extra, and is controlled by a separate lever. Other features are a substantially built kick starter and a clutch, which is controlled either by a pedal or by the usual American practice of a long lever adjacent to the gear lever and working on the outside of the gear quadrant. Throttle control is, of course, by twist grip."

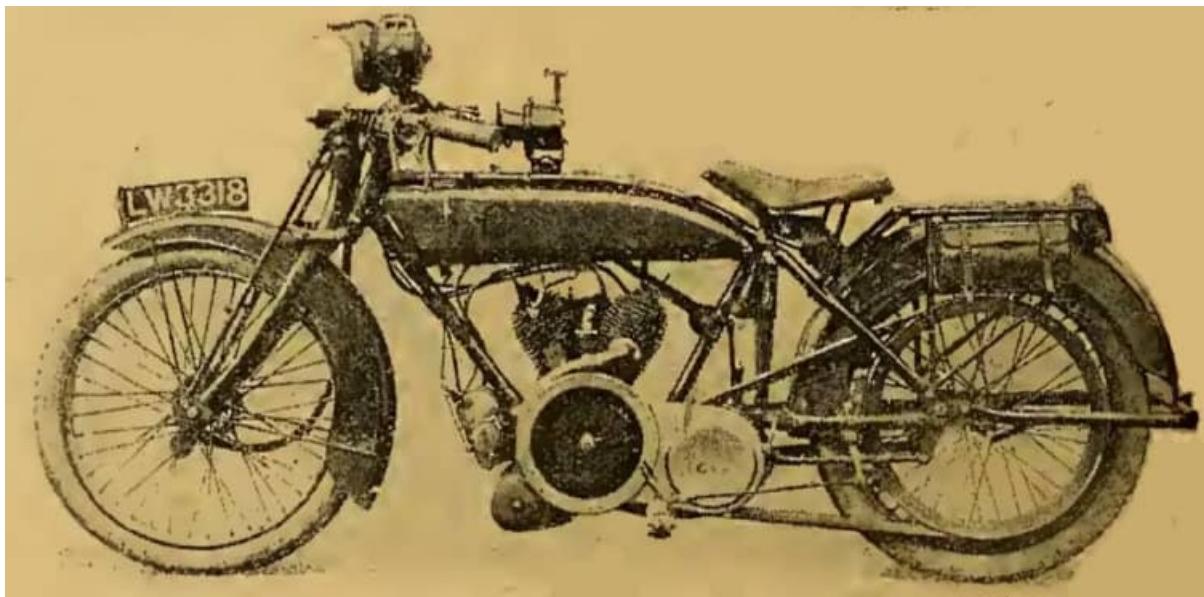


"The new pattern four-cylinder Henderson. Note the exhaust muff round the rear exhaust pipe for heating the air to the carburetter.



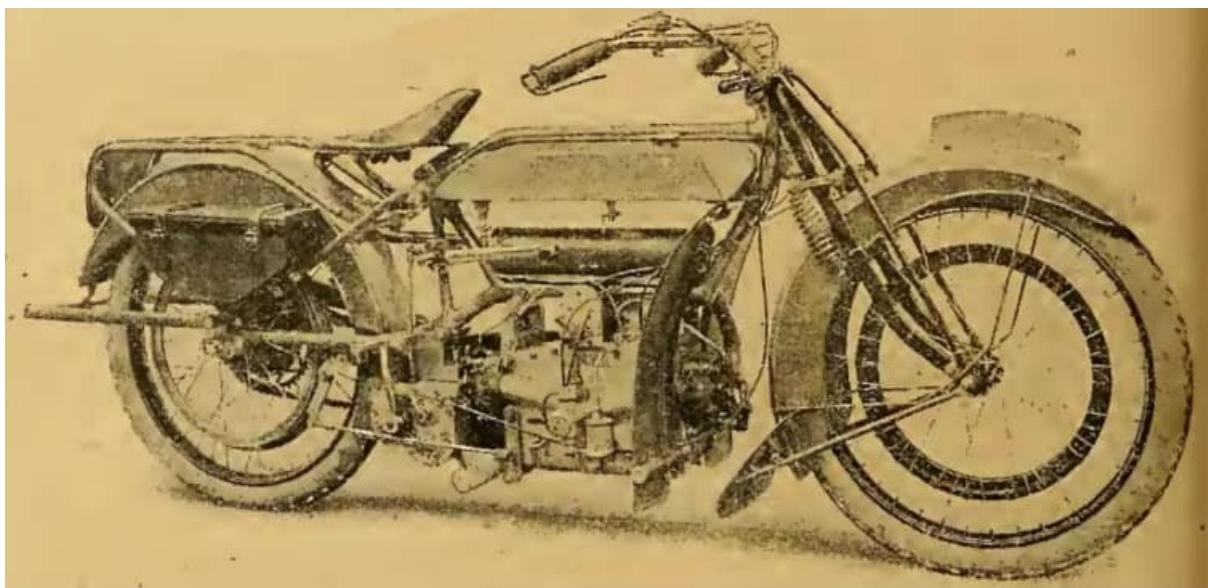
"One of the most symmetrical and compact looking British twin motor cycles is the new 6hp Brough Superior, equipped with the 72x90mm MAG engine...As no attempt has been made to build the machine down to a price the designer has had a free hand to produce a motor cycle without a jarring line from the appearance view-point. Either an ohv or a side-by-side 8hp JAP engine may be fitted, and a close ratio Sturmey gear box is usually specified. Although the machine was originally designed ^s a fast solo mount, it is not surprising that there is now a considerable demand for it as a sporting passenger outfit."

"THE STANGER IS NOT AN ENTIRE novelty, but this year will mark its first, appearance in improved form with spring frame...the Stanger engine appears to be a very nicely designed job generally, and should be equally suited to solo or sidecar work. It is, of course, very simple, and possesses a minimum of working parts; this, in conjunction with the fact that the engine gives the torque effect, and consequent smooth running of four cylinders, should prove a most attractive quality to the discriminating class of rider. Well-tried standard components are used, such as the Amac carburetter and the Sturmey-Archer three-speed gear box. Final drive is by belt, and the frame suspension is controlled by a long laminated leaf spring."



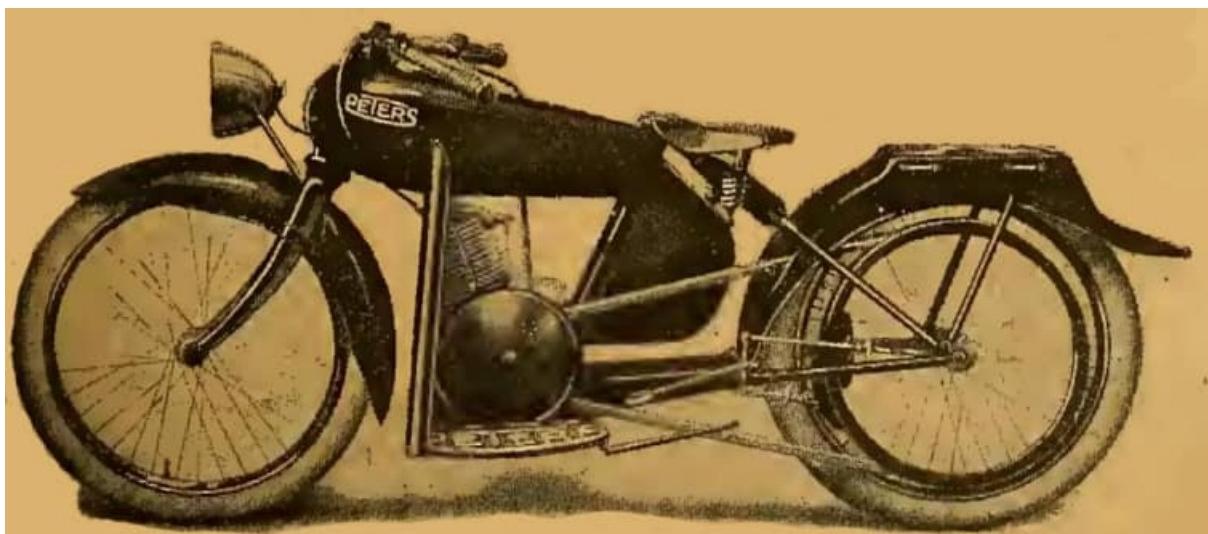
"The only V-twin two-stroke on the market—the 5hp Stanger."

"AFTER AN UNWAVERING AND STAUNCH adherence to belt transmission, the Zenith designers have at last followed the popular demand [with] an all-chain-drive machine...the new machine is intended as a solo mount, and an attractive one at that. No doubt the relinquishing of the infinitely variable Gradua gear on even one of the Zenith range has been undertaken with mixed feelings, but we think that Zenith Motors have acted wisely, for nowadays the demand for belt transmission is largely limited to the sporting type of rider, who in these bread-and-butter times does not form the backbone of the motor cycle movement...The 3½hp oil-cooled Bradshaw engine is held by hangers extending from the bottom horizontal frame tube. Naturally, the chief novelty lies in the chain drive, but the application is conventional, and the gear box is the well tried Sturmey-Archer three-speed pattern, including clutch and kick-starter. Great attention has been paid to mudguarding, and the rear guard valances are provided with troughs to keep all drippings away from the chain case and other parts. Both brakes are applied to the grooves of dummy belt rims, the front being operated by an inverted lever, and the rear by a pedal conveniently placed adjacent to the near side footrest...The engine, which is of 68x68mm (498cc), is fitted with a Thomson- Bennett magneto and the latest pattern Amac carburetter, and, owing to its excellent system of lubrication, is capable of covering over 2,000 miles on a gallon of oil, while the petrol consumption is stated to be between 90 and a 100mpg...In addition to the standard model a variation, in the stripped sports category, will be introduced."



"A unique feature of the Zenith with the oil-cooled Bradshaw engine is the fitting of the silencer above the power unit."

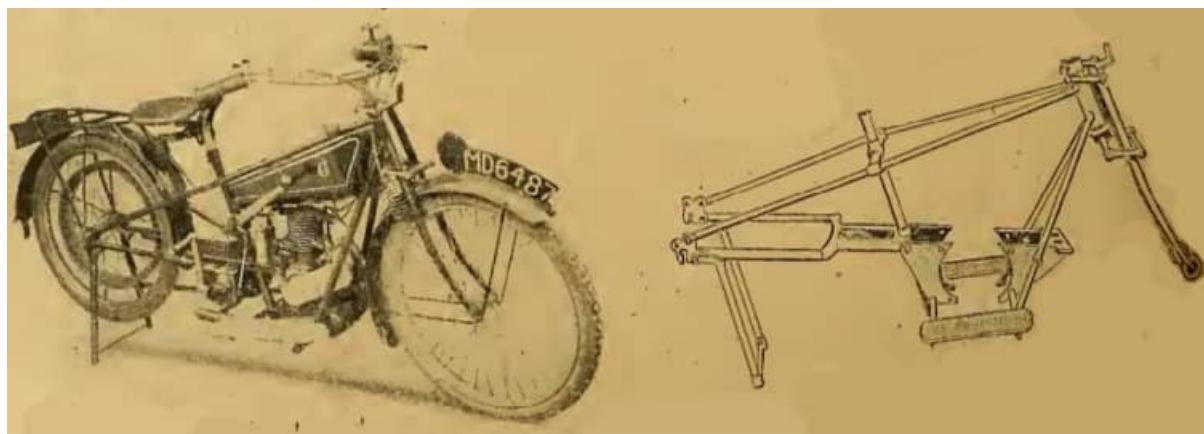
"THE PETERS IS SPRUNG FRONT and rear on simple principles, the actual springs being entirely concealed (the front coil in the steering head). The bulbous tank forms the main member of the frame, and the 347cc engine acts as a down tube. An exhaust pressure system of lubrication is incorporated, and the transmission is by belt over variable pulleys. Lighting is electric, current being supplied by a flywheel magneto."



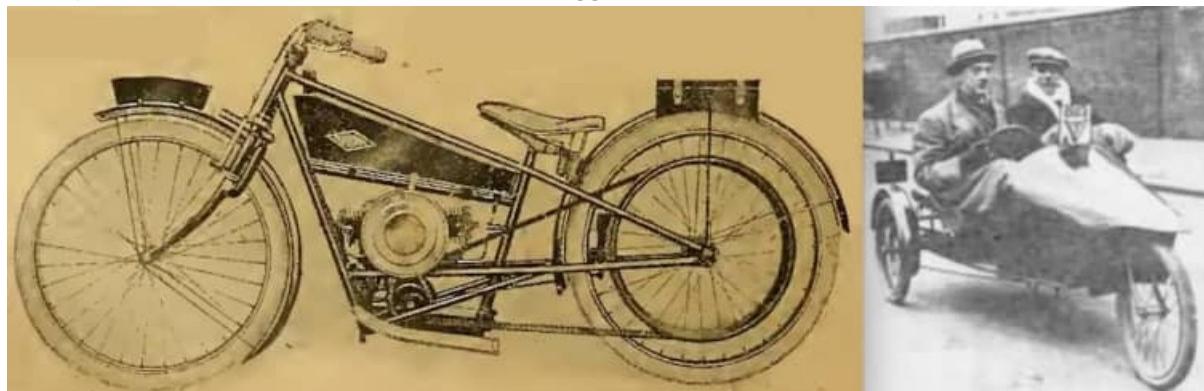
"On the Peters motor cycle the tank, engine and one stay make a triangle to form the 'frame'."

"THE MAKERS OF THE GRIGG MINIATURE motor bicycle have hitherto specialised on a machine of the scooter type, but they have now adopted a policy which this journal predicted would become general after, the first flush of the stand-up scooter boom had subsided. The fact that scooters made their riders too conspicuous was frequently overlooked. Although the scooter will not be discontinued, the Grigg Motor and Engineering Co, of Twickenham, have incorporated the same engine in a simple low-built duplex frame of motor cycle type. A two-speed Sturmey gear box, with clutch and kick-starter, is incorporated, the transmission being by chain and belt. The frame is constructed largely without lugs, the joints being welded, and the

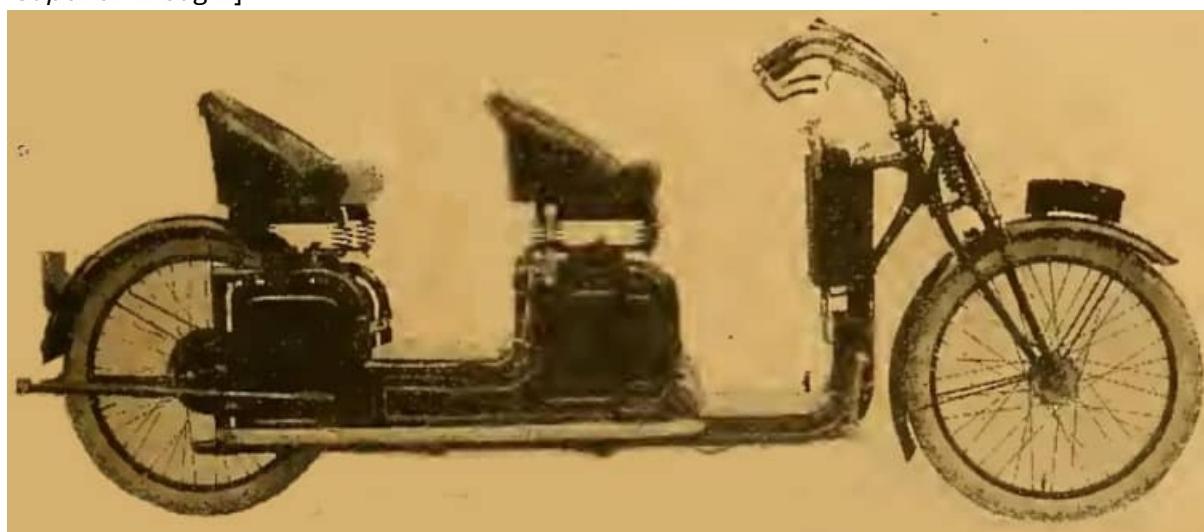
construction is light. The 57x63mm (161cc) two-stroke engine is well designed, and has a compression release which connects up with the exhaust system."



"A duplex frame miniature two-stroke, the Grigg."

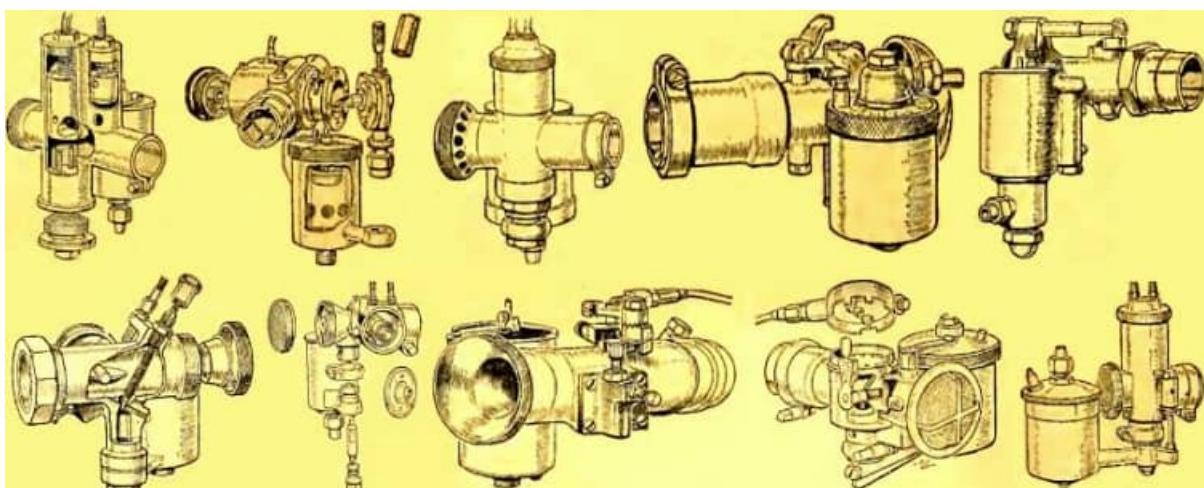


"Economic Motors specialise in a two-stroke flat twin motor attachment with flywheel magneto, originally designed to be used as a pedal cycle attachment, but this unit, which is now British-made, [is now] fitted to a duplex frame lightweight with chain-cum-belt drive." Economic also offered a 'trademan's carrier' and a rather cool (but slow) trike. [By the way, that's Freddy 'Zenith' Barnes at the wheel, inventor of the world beating Gradua transmission; his passenger is George 'Superior' Brough.]

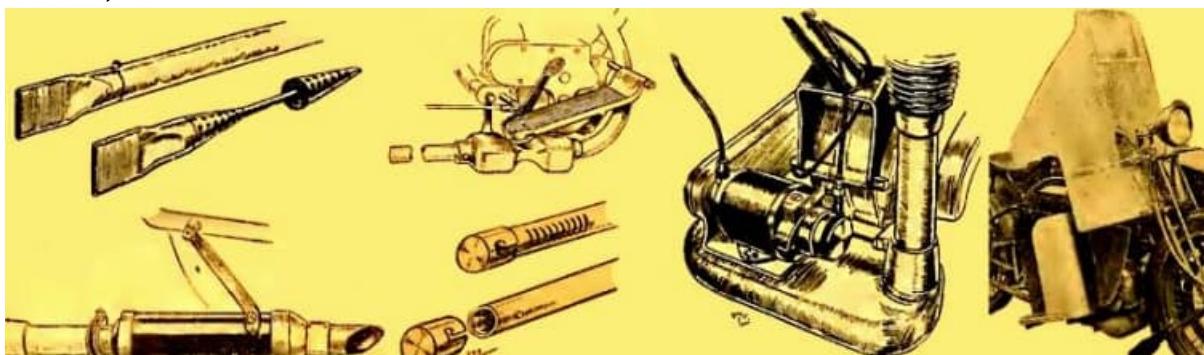


"A de luxe tandem, the latest form of Reynolds runabout, engined with a 2 3/4 hp JAP and three-speed Burman gear."

"PETROL ENGINES DEMAND A PERFECT or nearly perfect explosive combination of air and petrol vapour to function to the best advantage. Perfection, however, in anything is difficult of human attainment, and for that reason, no doubt, the problem of the ideal carburetter has attracted and worried almost everyone interested in motor cycle design. Almost every carburetter designer has claimed perfection for his production, but the fact that no one type or make has superseded all others indicates that, in this field as in most others, the ideal is not to be attained by one path and one method. Tendencies, however, go to indicate that the older methods of carburetting air by means of a plain 'jet in pipe' and separately controlled air and gas throttles are moribund; advantage is being taken of all the known and many guessed-at laws of pneumatics and hydraulics, and we have for 1922 a greater range of automatic (single control) carburetters than ever before."



Left to right, from the top: Binks, Cox-Atmos, Amac, Zenith, Vici, Capac, Senspray, Degory, Claudel, B&B.



"The silencer that fits into the end of the exhaust pipe of the Ready motor cycle, and which can be detached and cleaned easily. Made of aluminium, this novel double expansion chamber replaces the 'canister' type of silencer on the Quadrant. 'Carbjector' silencer fitted on the tail of the exhaust pipe of the two-stroke Velocette. Bayonet caps, detachable for speed events, on the end of the exhaust pipes of the NUT sports model. Well-rounded and symmetrical, the capacious aluminium silencer of the 2½hp Coventry Eagle enhances the appearance of the engine unit. A bold attempt to solve the problem of weather protection for London-Exeter competitors: the new BSA shields, complete with celluloid screen."

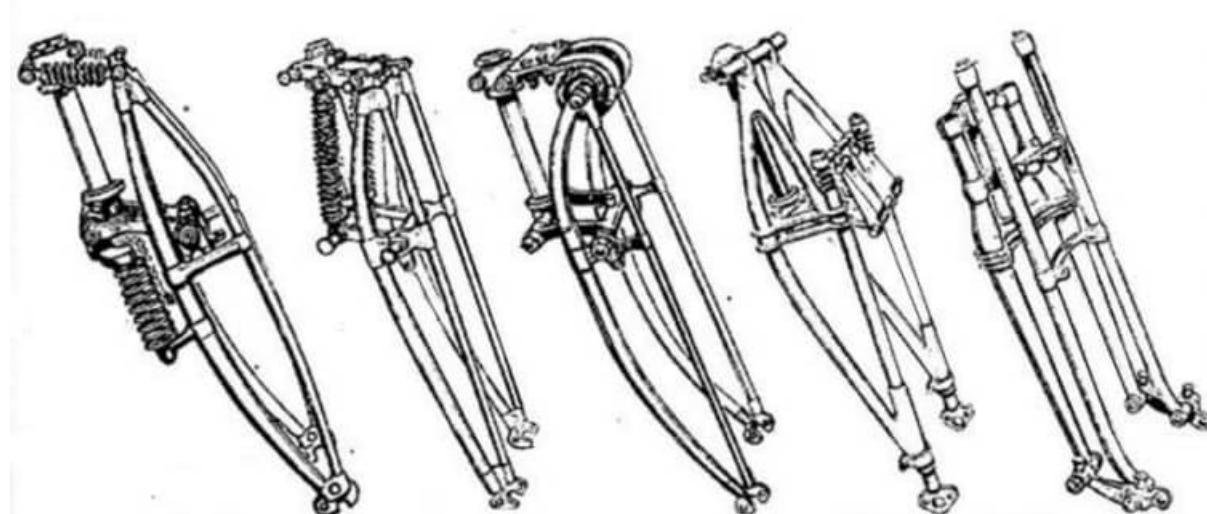
"NO LESS THAN 94,000 MORE motor cyclists paid licences than the number officially recorded in 1920... the increase this year in numbers is over 25% of the official figures for 1920. The figures reveal a very satisfactory state of affairs and emphasise the great popularity of motor cycles. In America the tendency is quite in the reverse direction, which may be attributed to the

failure of the American industry to realise that the motor cycle's greatest feature is its economy. In the USA very few of the mediumweight and lightweight types, so popular in this country, are made in any quantity."

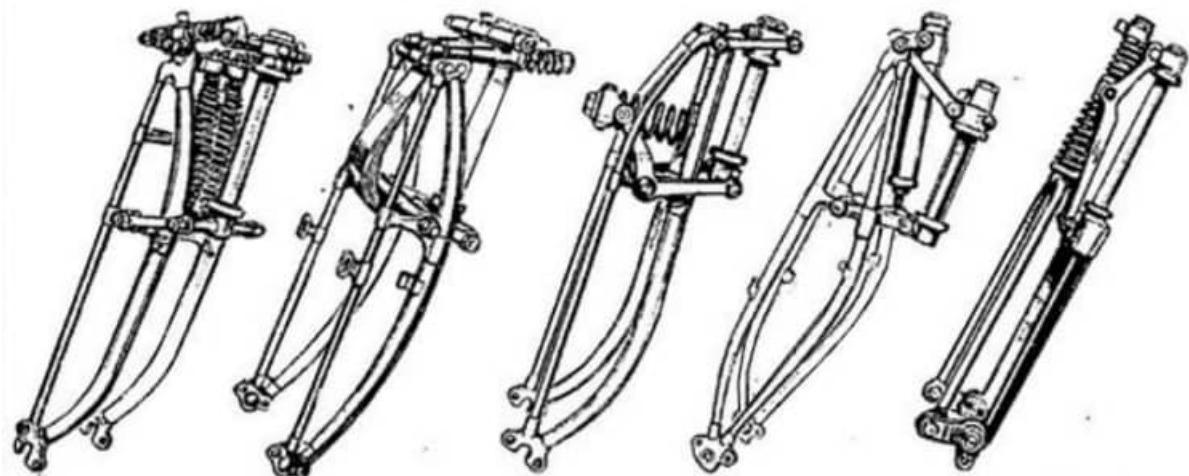
"IF MANUFACTURERS WERE INFLUENCED only by the public clamour for cheaper machines, we should arrive at a stage where small tyres, and poor fittings and workmanship, would be the rule, and real progress in design would stagnate.

Fortunately, the British motor cycle trade as a whole is far too sensible to follow such a short-sighted policy, and has a reputation of excellence to maintain; we may rely also on the brains of some of our designers to produce new models which will show a definite advance, over past practice."

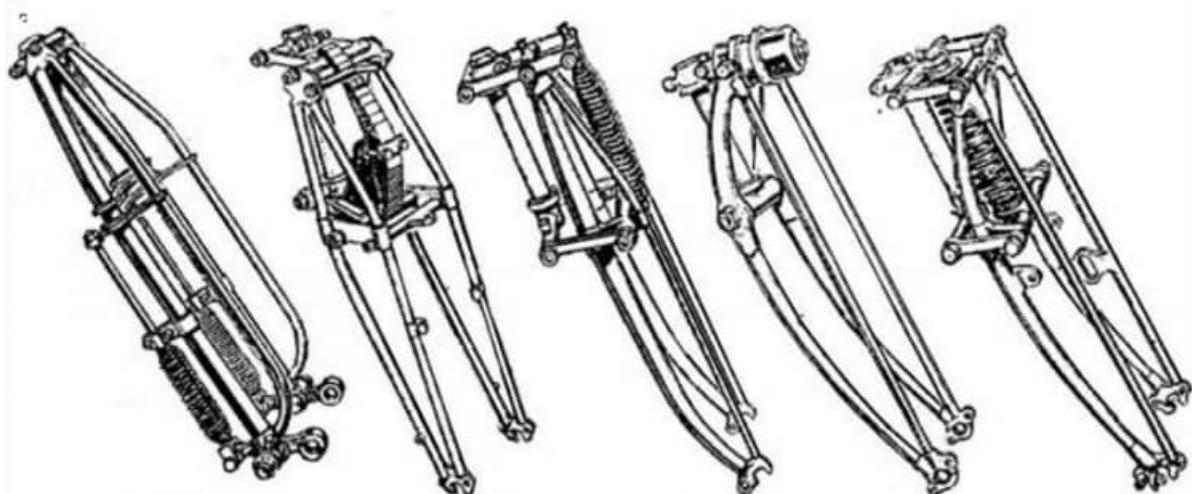
THE MOTOR CYCLE OFFERED "Notes on the ways and means adopted by 27 makers to absorb front-wheel shock...Had the idea of the spring fork never arisen...then the motor cycle, as we know it to-day, might be non-existent...but it must be remembered that even the best types are based on a compromise and, unfortunately, a compromise between more than merely two factors...Forks may be most readily and intelligibly classified into five general categories, by considering the movement or motion they permit of the wheel when in action: (1) Vertical or slightly inclined straight line movement; (2) Short radial movement in front of a low down pivot or short radial movement behind a low pivot; (3) 'To and fro' radial movement on a pivot at the foot of the steering head; (4) Upward, or vertical, curving motion obtained by two 'parallel links' in some cases by being neither parallel nor of equal length; (5) Approximately a combination of 3 and 4, obtained by substituting some form of spring for the top pair of links." The Blue 'Un collated popular forks under each heading: (1) Coulson, Scott, Wooler; (2) Chater-Lea, Corona, FN, Harley-Davidson, Indian, LMC, P&M; (3) Beardmore, Triumph; (4) BSA, Cedos, Douglas, Druid (old type), Edmund, Enfield, Rudge, Saxon "but the Matchless, Royal Ruby and Sunbeam, and particularly the Matchless by reason of non-parallel and unequal top and bottom connecting links, have a considerably modified and restrained motion...the Edmund has a vertical semi-elliptic spring with an action that may best be described as 'frictionally retarding a parallelogram from becoming a rectangle', a description perhaps not technically brilliant, but, we hope, lucid!"; (5) Brampton, Dunelt, OK, Rover "and, for sidecar work especially, the type has much to recommend it".



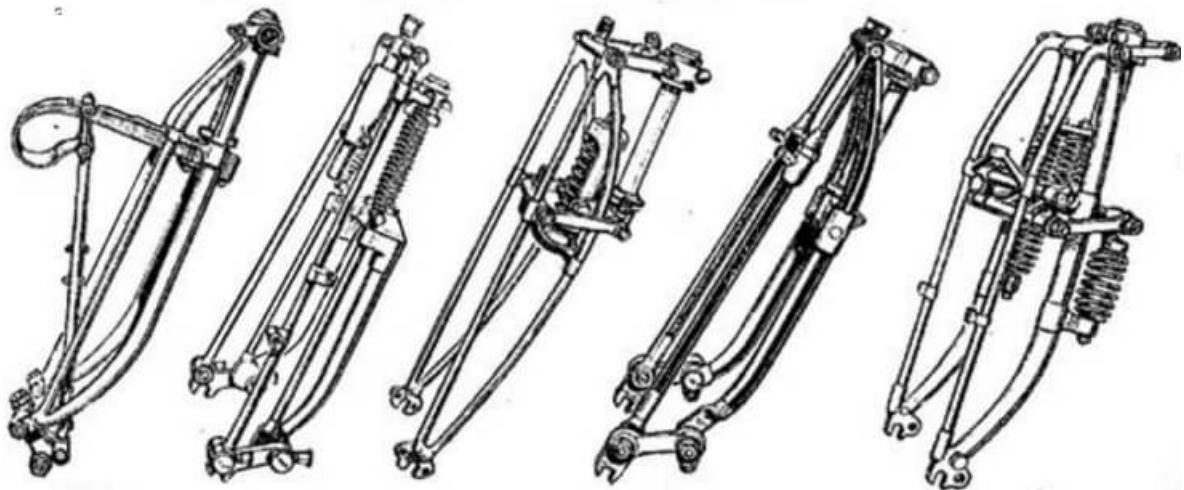
Rover, Douglas, OK, Coulson, Harley-Davidson.



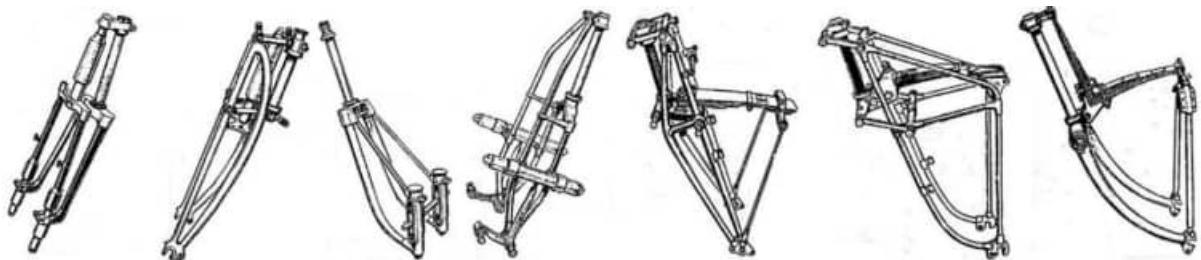
Brampton, Dunelt, Saxon, Matchless, Chater-Lea.



LMC, Edmund, Enfield, Triumph, BSA.

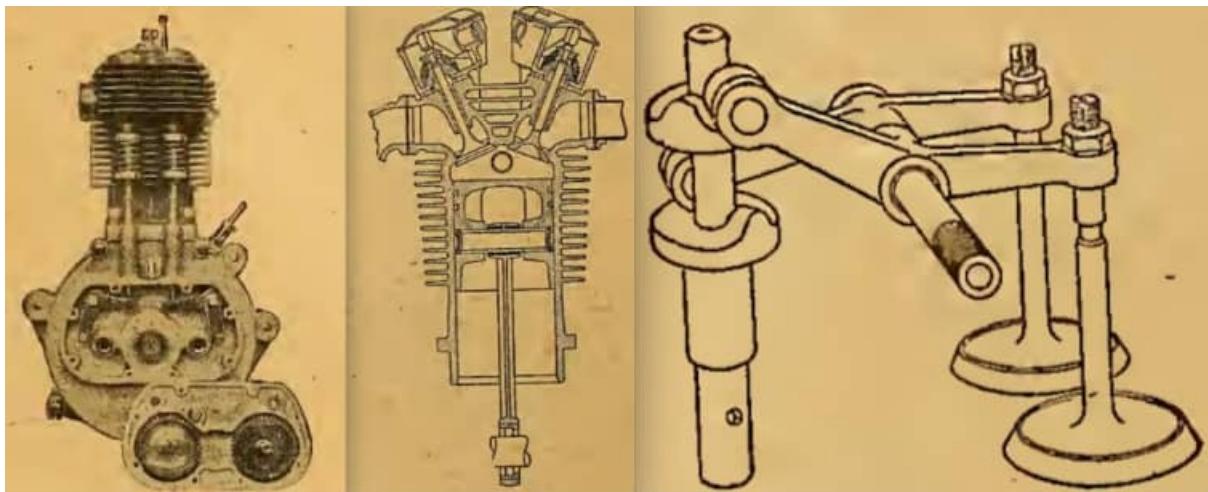


Indian, P&M, Cedos, FN, Druid.



Scott, Rudge, Wooler, Corona, Sunbeam, Royal Ruby, Beardmore.

"THAT THE 1904 3HP TRIUMPH ENGINE was almost exactly similar to many 1920 single-cylinder engines illustrates how little conventional design has changed during the past 17 years. This point was mentioned by Mr HD Teage, of *The Motor Cycle* in a paper read last Tuesday before members of The Institution of Automobile Engineers at Birmingham. The following are extracts from the paper: 'The original engine (the 3hp Triumph) had a ball bearing crankshaft of normal built-up construction, side-by-side mechanically-operated valves, and any individual part might be mistaken for that of a modern motor cycle engine. The 3hp Triumph is given as an example of a 17-year-old engine which was the forerunner of the present-day single-cylinder engine, and as showing that improvements have taken place in detail only...Inclined overhead valves, especially in conjunction with a long-stroke engine, provide an ideal combustion chamber and gasflow; cylinder fins of the circumferential type are easily applied and the foundry work is simple; it is not, however, easy to devise a satisfactory valve gear. An obvious solution lies in the use of an overhead camshaft carried well clear of the casting for cooling purposes. Unfortunately, this involves considerable cost in bevels, or skew gears, thrust races and expansion joints, though it is possible to devise a simple two-step chain drive which shall not be unduly strained by cylinder expansion. A simple method of avoiding a multiplicity of gears is used by the HFG light car...The MAG engine long ago demonstrated the fact that overhead valve gear may be suitably enclosed, and a very ingenious system of enclosed valve gear is in use on the Hotchkiss light car engine...In defence, of the side-by-side valve engine it must be stated that good efficiency can be obtained from this type if enough care is expended on the design of the valve ports, combustion head, and cooling areas, though after 20 years' experience the engines which have been so designed might be counted on the fingers of one hand. On account of simplicity and ease of manufacture alone, the three-port two-cycle engine has an immense field for development, and it has already gone a long way in assisting the production of the machine for the multitude. It is curious that the would-be designer of a two-cycle engine is faced with an extraordinary absence of data on which to



"The 3hp Triumph engine, showing the similarity of this 17-years-old engine to modern production. Enclosed valve gear and push rods, and excellent cylinder design: the Hotchkiss. A pair of bevel gears is saved by the ingenious arrangement of cams on the HFG."

base his calculations, as such figures as are available refer almost entirely to low-speed engines such as are used in launches...It is not necessary to use aluminium or alloy cylinders to obtain good cooling if sufficient metal is used and scientifically disposed. Nor is there any need for water-cooling on any single-cylinder motor cycle engine, and such a tendency would be a retrograde movement, especially from the solo rider's viewpoint...It is curious that the unit engine and gear box system has not become more popular in this country. The ABC, Clyno two-cycle, Beardmore Precision, and Wooler colonial models practically complete the list of existing British machines, though the Diamond, Singer, Veloce and Villiers have all built machines of this type, and the Superb Four is a promising design. On the other hand, almost every modern Continental and American design embodies the gear box with the crank case (either cast integral or bolted on)...Spring frames have been a fruitful source of discussion, and much ingenuity and paper have been expended on the subject, but, as far as the solo mount is concerned, their inclusion in the specification should be justified by the fact that lighter parts can be used in frame manufacture, so that the total weight of the fully sprung machine is little or no greater than that, of the unsprung type, and the former is equally rigid laterally. Once shaft drive becomes popular, the unit system will automatically come into vogue, and in the meantime the designers of the machine for the multitude would do well to study the designs of the Clyno and the Gillet two-cycle machines."

"FOR THE FIRST TIME IN history the Bois de Boulogne, in Paris, was the scene last Thursday morning of motor cycle speed tests. Thanks to the energetic Motorcycle Club de France, the municipal authorities consented to allow the famous Allee des Acacias, which, during the season and at certain hours of the day, is the most elegant rendezvous in the world, to be given up for three or four hours to attempts on motor cycle world's records. In addition to this, the authorities placed at the disposal of the organisers a force of more than 2,000 soldiers, police, and municipal guards, who were used for controlling traffic and keeping spectators off the course. The event is really unique, and constitutes a most important victory for motor cyclists, for although there is no legal speed limit in France, the Bois de Boulogne is most jealously guarded, and at normal times fast driving is almost as rigorously suppressed as in Hyde Park...The English rider, JV Prestwich, broke the world's record in the 250cc class by averaging 68.59mph for the flying kilometre...The machine was built by Bartlett, a well-known English

motor cyclist, who has been resident in France for several years, and was equipped with a JAP engine."



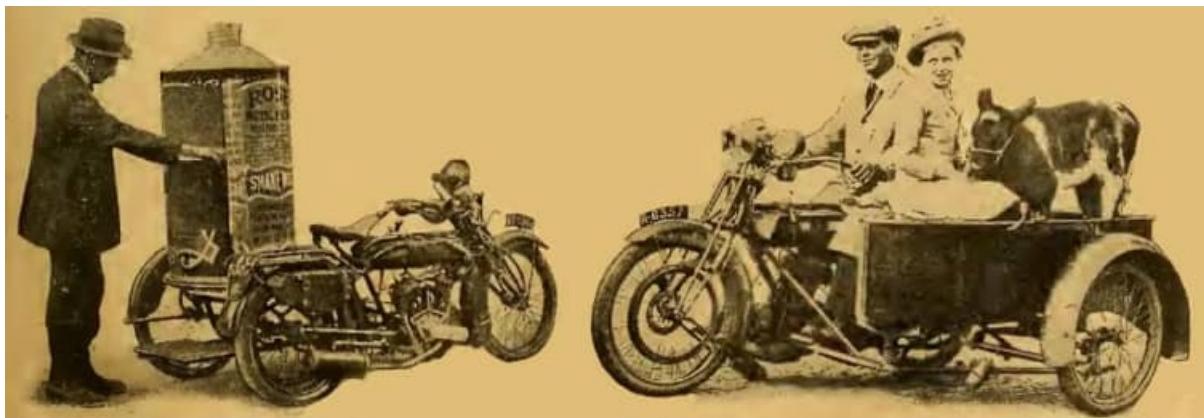
"The night of the recent eclipse of the moon was ideal for a moonlight run by motor cycle, and the above illustration, taken by flashlight, shows Basingstoke motor cyclists who took advantage of a run out in the clearer country air to observe the phenomenon."

"TWENTY-ONE COUNTRIES WERE represented at the International Road Conference at Paris...the French Government is anxious that steps should be taken towards modifying road regulations throughout the world."

"WE ARE GLAD TO KNOW that E Kickham, who was so severely injured in the Grand Prix Race, is back in England. His leg is still in plaster and his arm out of action, but there is every prospect of a complete cure. We congratulate him on his recovery, which the doctors say is due to his cheery optimism...Some confusion may exist in the minds of our readers owing to the number of motor cycle races on the Continent bearing the title Grand Prix. The most important of these was. the Grand Prix of the Union Motocycliste de France, an event bearing the importance in France that the TT races hold in England. There was also the Grand Prix de France, organised by the Motorcycle Club de France—a live and energetic club—but naturally this race did not occupy the same exalted position as that to which we first referred. Finally, there was the Grand Prix organised by the Belgian Motor Cycle Federation, which occupies in Belgium the same position as the TT does in England."

"EVERY LEVEL CROSSING SHOULD be guarded by gates; recently a Leicester motor cyclist was killed through this omission. This is a matter our motoring organisations might take up."

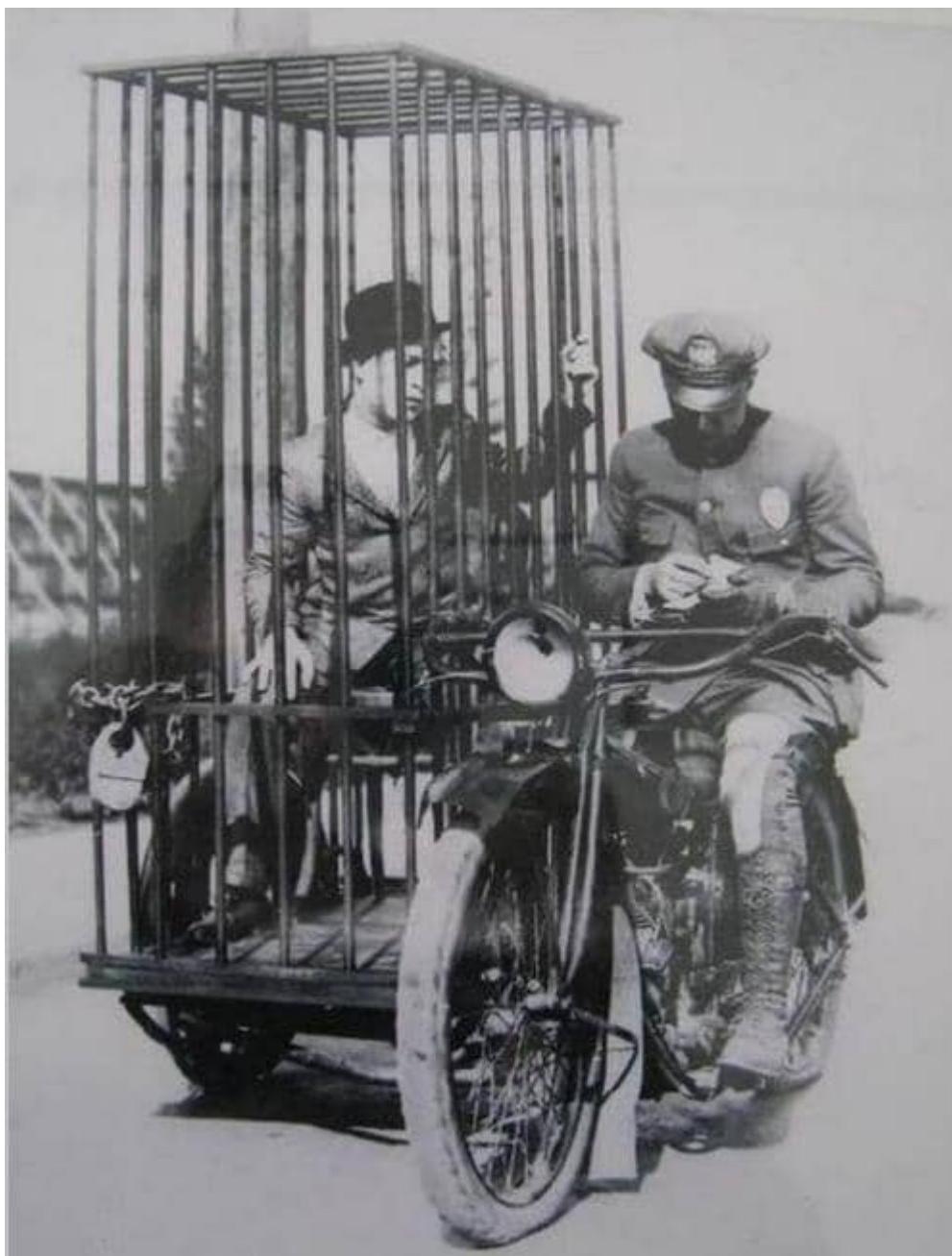
"SOME DOUBT STILL EXISTS in the minds of motor cyclists—and in the minds of the police!—as to whether or not motor bicycles need carry a rear red lamp at the present time; but we are assured by the Legal Department of the Auto Cycle Union that riders of solo machines are exempt. On the other hand, it is urged that, for the safety of the motor cyclist himself, without considering the convenience of the other road users, a lighted rear lamp should be carried after dark."



"The utility sidecar: Mr Turk, of Brighton, is to be congratulated on his bright idea of advertising a brand of metal polish by making the body of his Zenith sidecarrier a replica of the speciality in which he deals. (Right) A juvenile member of the United Dairies Calf Club of Loughborough, taking home the calf after a 'draw' at the Cattle Market. The outfit is a BSA."

"IT CERTAINLY CANNOT BE SAID to-day that only a machine of 500cc or over may rightfully claim to cater for the soloist who takes a pride in the liveliness and speed of his possession; indeed, there are one or two super-efficient 250cc lightweights already on the market which cause one instinctively to wonder if anything heavier is not superfluous and will not in the near future be confined solely to sidecar haulage. Then just one step higher up the scale, we have a select band of 350cc 'thoroughbreds' that competition has proved very little inferior to 500cc machines when matched under equal conditions."

"POWERFUL MOTOR CYCLES, WITH sidecars able to carry four policemen, if necessary, are now part of the equipment of all the Paris police stations. It is anticipated that their presence in the streets will act as a deterrent to would-be infringers of the speed limit. Then, again, the perpetrators of many armed robberies have recently escaped by using motor cars, and there has been no means until now of overtaking them. The sidecars will be used also in transporting victims of street accidents to the hospitals."



The NYPD found

another use for police combos.

"A CORRESPONDENT WANTS TO KNOW what a Sidcot suit is. It is," Ixion explained, "like a revolver—a handy thing on special occasions, but you do not want it every day. Actually it is what the tailors call an 'aviation suit', and is designed to achieve the impossible, ie, keep you warm in December at altitudes of 25,000ft and speeds of 100mph It is externally constructed of waterproofed twill, lined with fleece and ether cosy materials, and makes you look like a hybrid. It follows that a Sidcot suit is just the goods for a London-Exeter or for any other motor cycle expedition on which warmth is of far more account than appearance; but it is not, of course, quite the dress in which you would go to declare your income and past moral character to Mabel's papa. The disposal merchants have not sold them all yet, and the ardent motor cyclist can still pick one up at much under the original price which the RAF paid for them. It is odd how war relics come in handy. When I test an 8hp sidecar at night this winter I shall be clad in a helmet and Sidcot suit—both made for the RAF—gum boots designed for the much-enduring

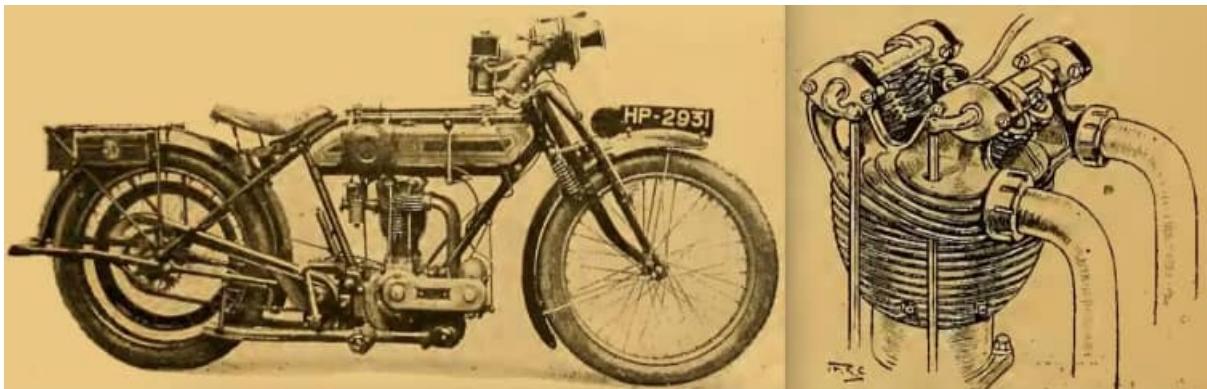
infantry. Triplex goggles (MT pattern), and a pair of mitts originally ordered for the Archangel field force."

IXION ALSO TOOK AN INTEREST in cycling nomenclature: "A correspondent who enjoyed a classical education suggests that if cyclists dislike the term 'pushbike' they should adopt the one and only word in our language which properly belongs to them, to wit, 'velocipede', by which name all pedal cycles were known in his father's young days. I think he is not on the surest ground. It is, of course, ridiculous for cyclists to claim the plain word 'bicycle', which means 'two-wheeler', and contains no implications about the source of power used for propulsion. But 'velocipede' only means 'swift foot', and says nothing about wheels of any kind. I fear my verdict must still be cast in favour of 'pushbike'."



"IN MANY RESPECTS THE NEW FOUR-VALVE sporting Triumph is unique. Before taking it over for a road trial, we confess that we expected to find, excepting the super-efficient engine, almost a replica of the chain-driven 'four' fitted with TT handle-bars. The writer has had considerable eminently satisfactory experience with the latter model, and, since many of the details gear box, transmission, control, etc—are common to both types, the supposition was an excusable one, and the revelation was consequently all the greater. The ohv 3½hp machine is as different as an anti-aircraft gun is from a trench mortar. In 'feel' and in performance alike it is all that the often loosely-applied phrase 'sports model' should signify; and...it is as sturdily built, adequately tyred, and accessible as the hardest riding and least mechanical motor cyclist could desire. On first sitting astride the machine, the excellence of the riding position is at once apparent. The footrests are low down and well back, and just the right amount of the rider's weight is thrown on the slightly dropped handle-bars. Knee grips are now possible, for, since our first description of this model, the gear quadrant has been moved to the fore end of the tank as on the IOM Triumphs. The rear brake pedal, however, might with advantage be extended more towards the foot, although old Triumph riders will have no difficulty in finding it at any time. The standard decompressor is fitted, but the priming tap has been dispensed with; raw petrol may be sucked into the cylinder by opening the throttle fully, shutting the air right off, and kick-starting once or twice. By this means an easy start is ensured on the coldest morning. Incidentally, the slipper type of aluminium piston fitted does not gum up so readily as a cast iron one. Ignition should be fully advanced when starting on the decompressor, but should be retarded before the lever is dropped. Which brings us to another point worthy of note. Full use should be made at all times

of the ignition control. The engine, as any high-efficiency power unit should be, is very sensitive to variations of the firing point, and slight grades or slow speeds call for a corresponding amount of retard in the ignition setting. This need for sensible driving is accentuated by the high top gear ratio—4.23 to 1 with 3in tyres. Since the Triumph carburetter is to all intents and purposes semi-automatic, the air lever may be left open practically all the time, but here, again, the ohv engine is slightly more sensitive than the side-valve pattern. All plate clutches which run in oil are inclined to drag slightly until the lubricant warms up, and it has already been remarked in these columns that, in consequence, gear changing on first acquaintanceship with this particular gear box is just a little awkward. This, however, need worry no one, for very shortly one learns to operate the gears up and down with the utmost facility and absence of noise. At the same time, if the weather be at all cold, the beginner is recommended to place his toe on the brake pedal before engaging first gear. Once under way, second gear may be engaged early, but, to enjoy the thrill of real acceleration, top should not be brought into action too soon. On the 7.02 to 1 middle ratio, one is advised to grip tightly before opening out! A momentary closure of the throttle just previous to pushing the gear lever right down, of course, ensures a much smoother change. Comfort and steering, attended to by 26x3in tyres and Druid forks, are all that could be desired from a rigid frame machine; nor do the large tyres appear to affect maximum speed to any serious degree. No speedometer was fitted to our machine, but on the one occasion that road conditions permitted full throttle for about twenty seconds—we have no doubt



"With the gear lever in the 'IOM' position—right forward and permitting knee-grips—and footrests well to the rear, the sporting Triumph now really fits the speedman. (Right) Twin inlet and exhaust valves in this case do not necessitate complicated rocker gear: four dust-proof ball bearings are used."

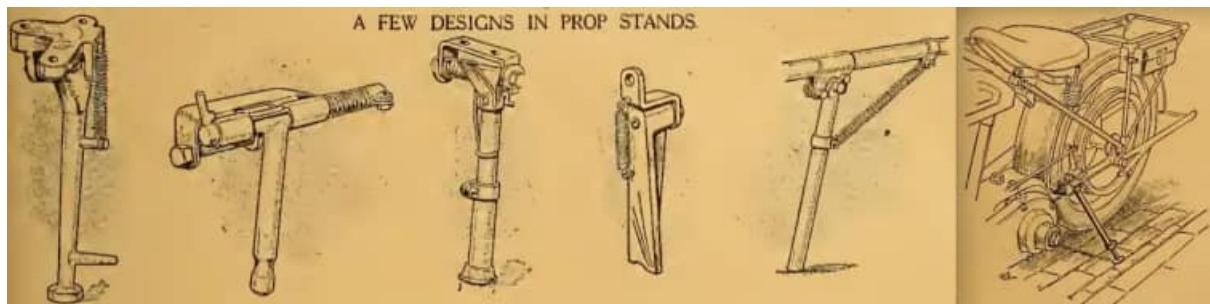
whatever that we appreciably exceeded the elusive 'sixty'. There was no tendency to wobble. However, a fairer criterion of the machine's all-out capabilities is afforded by the well-authenticated fact that one of the production models to standard specification has lapped at Brooklands at 68mph, which, in effect, means that it has exceeded 70mph. It should also be remembered that the racing four-valve Triumph holds the 500cc hour record at 76.74mph; it is fairly obvious that a racing setting to the carburetter or a racing carburetter and the application of a little tuning, and the production model might be even further livened up—although this would certainly not be advisable in the case of nine riders out of ten. More remarkable is the petrol consumption of the machine in its present form. Averaging from 20-25mph—a very pleasant, slow 'ponk-ponk'—the consumption is nearly 120mpg, which is a notable instance of theoretical high efficiency design proving itself in practice. Four valves in a hemispherical cylinder head, ultra-light reciprocating parts, and thoroughly adequate cooling, are, it will be recollect, salient features of the Ricardo design. It is likely that twin tail pipes will be fitted to

the silencer on all future models; with these the exhaust note may only be called noisy at high speeds. The valve gear, too, is surprisingly silent. There is little need to enlarge on the other qualities of the machine. Acceleration and hill-climbing on top gear are better than we expected, which is saying a good deal; and the brake is known to every Triumph rider. The horseshoe-type front rim brake is retained for emergency use, and, as the writer has vivid memories of a lone descent of Alt-y-Bady at its greasiest with the aid of this fitment, he is not going to quibble with its retention. It is among the best of its type. Nothing in this world is above criticism; we leave our readers to judge the seriousness of such imperfections as occurred to us. (1) There is considerable piston slap, especially when cold; but few aluminium pistons are quite free from this. (2) There is none too much ground clearance, especially under the foot-rest bar when cornering; in the case of a violent upset, say, in a freak trial, there seems a possibility of the left footrest puncturing the oil bath chain case. (3) Since the float chamber is on the right of the jet, the machine cannot be propped against the left kerb without turning off the petrol. (4) It was suggested in our correspondence columns recently that the plug was very inaccessible. Now, although two special spanners—box and cranked—are supplied, it is still none too easy to remove the plug when hot without burning one's fingers. Little more need be said. Triumph finish and Triumph workmanship are in evidence in every detail." A few weeks after this roadtest was published Ixion had his say: "I have just taken delivery of a four-valve Triumph. Readers may be surprised to hear that it is neither the speed nor the acceleration which have so far impressed me most. The high spot of the machine is its great comfort. It hammers one more nail—a big one—in the coffin of narrow tyres. The second item which amazed me is the transmission. The indirect gears are as near silent as can be, and the all-chain drive tugs considerably less than a tight belt would do when the engine is pulling slowly. Under circumstances where docility is required, such as starting up, or dodging through heavy traffic, she is as meek as a tame rabbit but open the throttle, and she feels just like a Waterloo Cup winner looks...[she] starts from stone cold on an Arctic morning at the first kick, and potters in and out of its small shed with the engine firing under easy and careless control, though quite ready to roar like a bull and leap like a young unicorn if one wishes to impress any stunt-merchant with its paces."



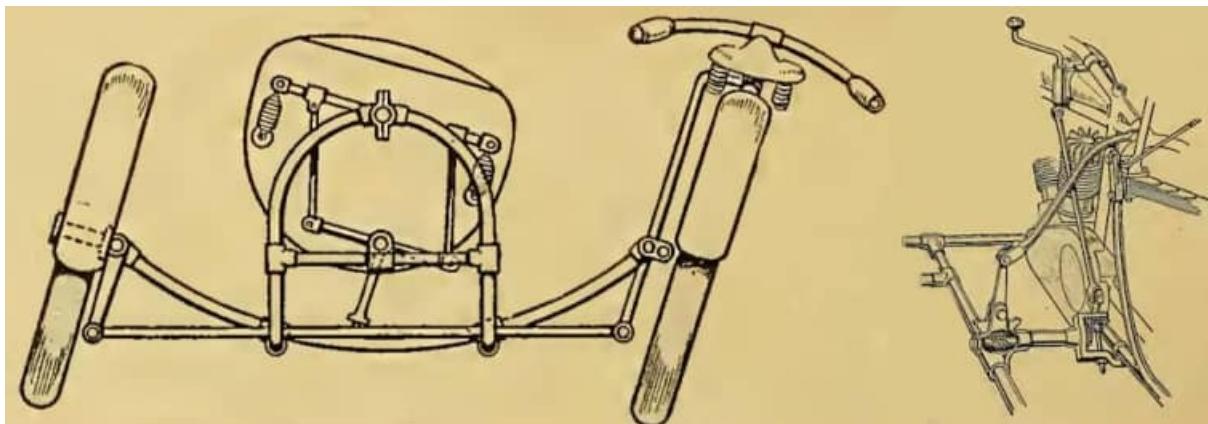
Just because it's a smashing illustration, here's a random page from a French calendar: "Nice day for the countryside; but, be careful! Don't leave a kid behind...or lunch!"

"S MARTIN, A WELL-KNOWN Los Angeles motor cyclist, recently made a blood-curdling leap of 67 feet in mid-air for a firm of film producers. The scenario called for the rider to dash down a steep hill, about 200 feet long, shoot up a short incline with a 10 foot rise, and leap a gulch 37 feet wide and 30 feet deep. Dashing down the hill wide open in second gear at 45mph, the rider gracefully sailed high in air as he reached the end of the up-grade take-off, and cleared the chasm under him by a big margin, sitting his machine steadily and easily in a semi-upright position. As the machine lost momentum in the air, it started downward in a nose-dive, and crashed to the ground, front end first, and then lunged forward in gigantic somersaults. The plucky rider rapidly recovered from the shock, and so far has suffered no ill-effects from his leap."



Prop stands were becoming common. From left: "A cast aluminium stand by the Pressed Steel Products Mfg Co. The Bowland prop stand, weighing but half-a-pound. A commendable design, by AHD Alltree. Marketed by the MAP Co, this stand weighs 4oz only. Designed by CH Morris, and simple in construction. A telescopic stand, by Messrs Taylor and Co, Southport."

FROM *THE MOTOR CYCLE'S* REGULAR review of new patents (the author, as you might guess from the writing style, was BH Davies, better known to us as Ixion): "Messrs Swan and Yeats are Australians; and I hate to seem unkind towards a country which provided the British Army with some of its very finest shock troops in the late war. But I cannot camouflage the fact that they are trying to add a new terror to sidecaring. They point out, with some justice, that the current, or rigid, type of sidecar outfit demands a little care on corners, and has to be strongly built if it is to resist the resultant side stresses. They propose to facilitate cornering and to reduce the stresses thereof by a patent chassis in which a control lever of the coffee-grinder pattern is used to tilt the bicycle in or out on bends. Their sidecar chassis is attached to the bicycle frame at three points. The lower attachments, fore and aft, are pivoted. The third is shown, complete with control lever, in the accompanying sketch, and is self-explanatory. This connection, ordinarily known as the saddle-pillar attachment, is normally rigid, an angular hinge being locked by a worm and quadrant. But when the control lever is operated, a pair of bevel pinions rotate the above-mentioned worm, and so cause the quadrant portion of the locking device to swing through an arc, small or great. The angle between the two arms of the hinge is thereby varied, and forces the sidecar chassis and the motor cycle frame ruthlessly apart or lovingly towards each other, as the case may be. It is so long since I drove a sidecar attached to a motor bicycle by 'flexible' joints that I have almost forgotten what the experience felt like. To the best of my belief there were two main drawbacks. One was that my thigh was apt to be rather painfully nipped between the tank and the sidecar; the other was that much faster cornering became possible, and that the tyres used to be wrenched out of their rims. However, Messrs. Morton consider that we have by no means heard the last of flexible sidecar connections, and the sketch shows their plan for an arrangement by which the sidecar wheel and the sidecar body cant over in sympathy with the tilt of the bicycle in taking a corner."

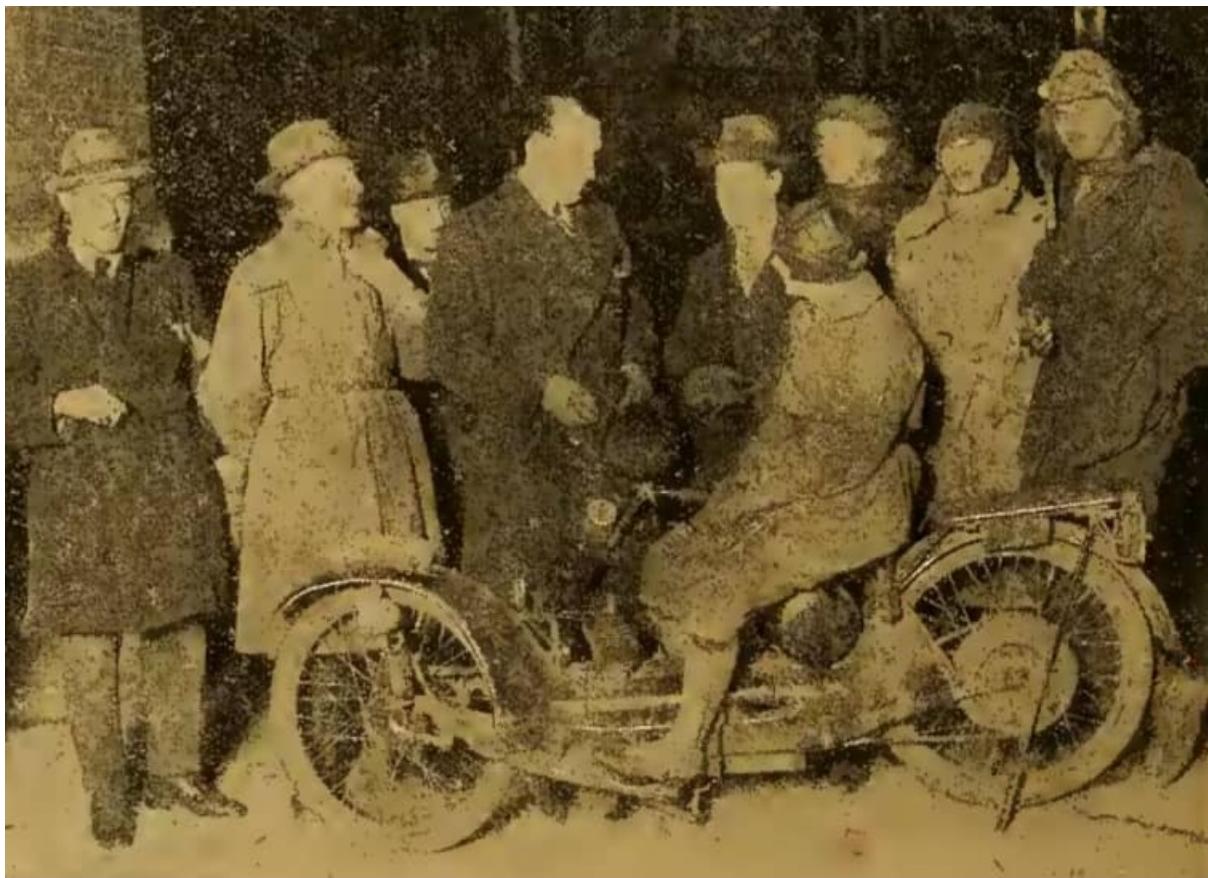


"Morton's sidecar chassis, No 160.630, 24/3/21. (Right) Swan & Yeats's sidecar chassis, No 137.963, 9/12/20."

"JUSTICE? A STAFFORDSHIRE MOTOR CYCLIST was summoned last week because it was claimed that his front number plate was not illuminated. The defendant maintained that his lamp was in such a position that the numbers would be adequately illuminated, and the Stipendiary intimated that he would examine it if the motor cyclist would bring his machine upstairs. Because he could not do so, the Stipendiary refused to examine it, and fined the defendant 15s."

"THE CONFLICTING CLAIMS OF motor grease and BA degrees were the subject of a lively discussion, when the Cambridge Union Debating Society rejected by 170 votes to 113 a motion calling for a ban on the use of motor vehicles by undergraduates during term time. Mr AS A Frere-Reeves, proposing the motion, said motor cycling students read periodicals dealing with the sport instead of attending to lectures. Opposing the motion in a humorous speech, Mr RJL Simon 'proved' that motor cycling was synonymous with knowledge."

"WHAT IS HOLDING UP THOUSANDS of sales is the knowledge that, when a man puts down his money for a new motor, an enormous slab of it is instantly gone beyond recall...Such depreciations are inevitable just now. Prices have been tumbling, and have accustomed buyers to ridiculous prices. Over-production has been rife. New models are being introduced, and rendering current patterns obsolete in a sentimental sense, if not from a practical standpoint."



"An enthusiastic reception was accorded Mrs GM Janson at Barnet on Saturday evening when she completed a 1,000 miles engine non-stop trial on the latest model Ner-a-car. Rain and cold winds, entailing a severe skid at one point during the run, have been Mrs Janson's misfortune; the comparatively clean condition of the machine at the finish, however, adequately demonstrated the efficiency of the large mudguards, whilst the rider herself, warmly clothed in a leather coat and spats, has suffered little from the effects of wheel splash. She is to be congratulated on having completed a daily average of 190 miles."

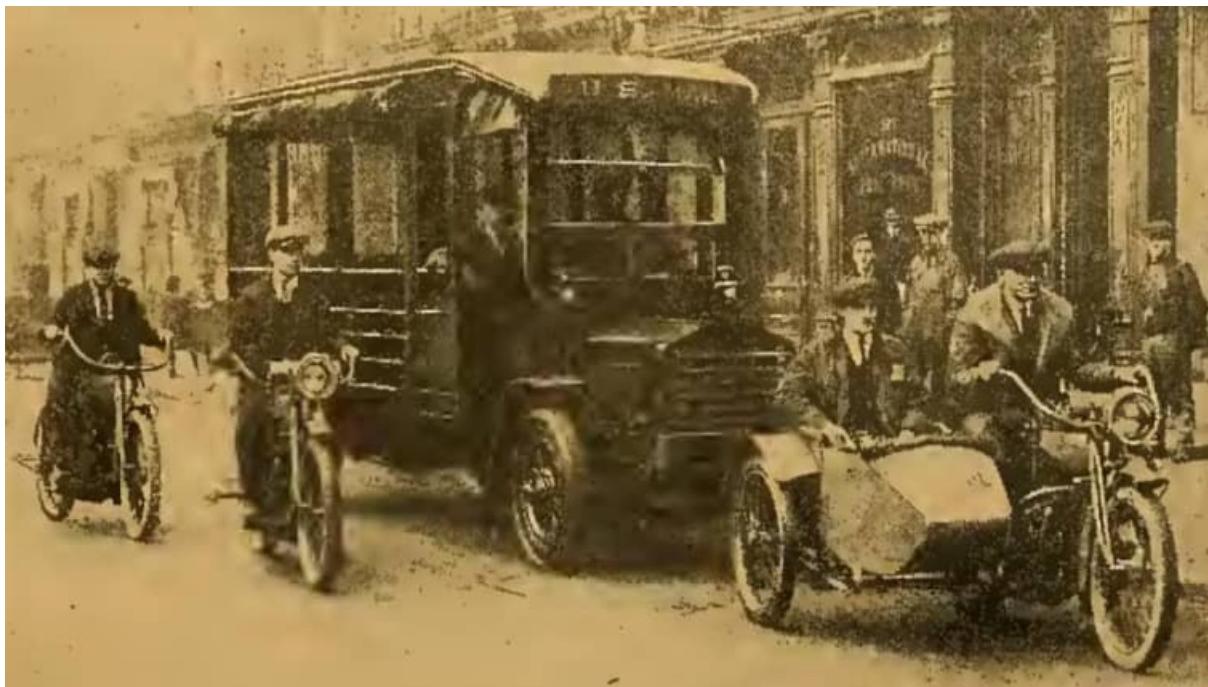


...And here's Mrs Janson demonstrating the stability of the Neracar, or just strutting her stuff. You decide. She went on to have a successful career racing and rallying motor cycles, tricars and cars, at one point holding the record for the faster Morgan driver on the planet.

"BARTIMEUS, THE WELL-KNOWN WRITER on naval subjects, in an article which recently appeared in the daily press on the subject of midshipmen, states: 'Mostly they own motor bicycles, not (as the conservative maintain) because they are the sons of rich parvenus, but because things mechanical are bred in their blood. A rough-and-tumble at the heels of a press-gang lieutenant once satisfied the midshipman's craving for excitement; now he seeks it in propelling a 'stink-bike' (every valve, bolt, and gear wheel of which he knows intimately) at grossly illegal speeds over tortuous thoroughfares.' We look forward to seeing a number of these sporting young gentlemen in next year's Arbuthnot Trophy Trial."

"SIR,—I AM TAKING THE LIBERTY of forwarding the opinion held by myself and many others on betting on motoring events. I refer, of course, to the betting conducted by 'bookies'. I think this state of affairs is diametrically opposed to the interests of the motor and motor cycle movement in general. Betting on horses and athletics is bad enough, but on motor races—well! These races, especially on the track, are all in the cause of the movement, while horse races are sordid financial undertakings. It is just as feasible to speculate on experiments conducted in the laboratories. We do not want the sport brought to the questionable level of horse racing, nor do we want the presence of 'bookies' at our events. I consider that this matter should be investigated.

Indignant, Tottenham."



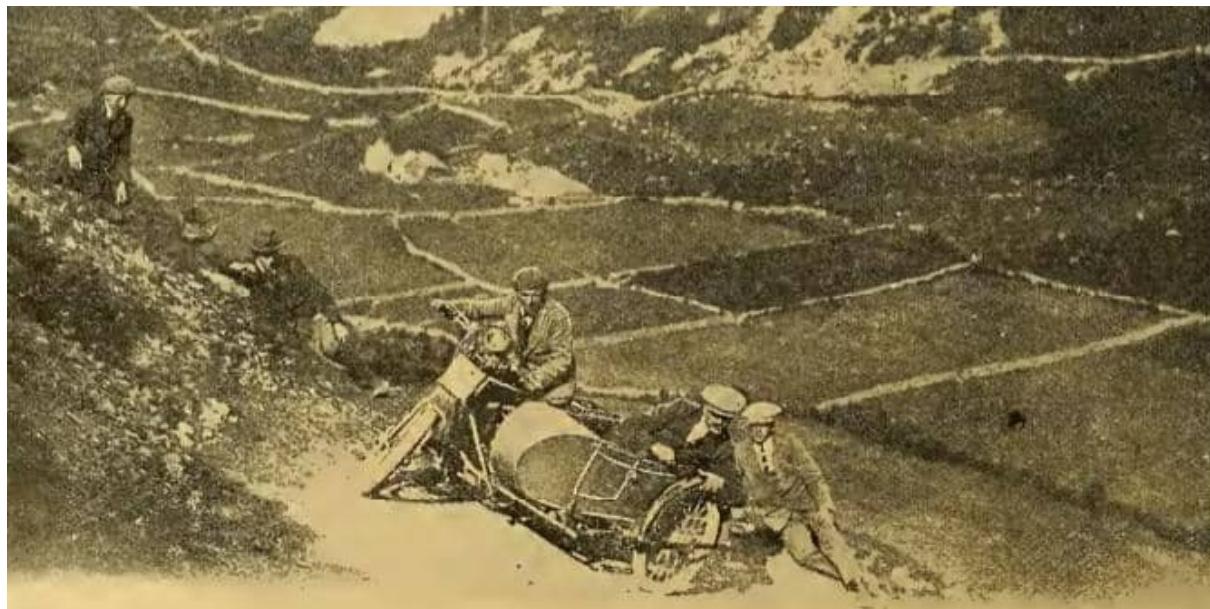
"Guarding the mail. armed motor cyclists escorting the van carrying registered mail in the streets of New York. This protective measure was adopted after a recent highway robbery of mail."

IXION ANNOUNCED FOUR RESOLUTIONS: "I am going to have 3in tyres (to flatten the bumps, and exorcise punctures). I am going to have some form of automatic oiling, and relieve myself of the necessity for watching my speedometer with one eye and a 'greeny-yallery' sightglass with the other. I am going to have a super-saddle. I am going to have electric lighting."

IXION JUST BEING IXION. If you don't enjoy this you're probably on the wrong website:
"Garulous Old Fogey. At the risk of earning the above cognomen, I must really reminisce a bit more. The MCC used to open its season (which was then *the* season, for the MCC dominated the sport) with a run to Brighton. Little birds twittered that two firms intended to stagger humanity by producing entirely novel passenger outfits. On the great day. Van Hooydonk appeared at Purley, trying not to look too conscious; he bestrode a Phoenix Trimo with two-speed gear and handle starting. He demonstrated *ad nauseam* until the late Wilbur Gunn rolled up on a 4½hp Lagonda tricar with open frame and quite put the Phoenix nose out of joint. He started this now forgotten contraption by tipping open a trapdoor in the waist of the chassis, and executing a few steps of the Washington Post on a pedal and chain gear. At Crawley, some mean-spirited person pinched Hooydonk's starting-handle. We all felt that pedalling starters were sound design after we had heard Hooydonk discuss the situation fluently for five minutes."

...AND THERE'S MORE. ENJOY. "Several veteran readers HAVE written confirming my jesting reminiscences about the perilous trailer which we all used before Percy Kemp invented the sidecar and J van Hooydonk begot the Phoenix Trimo. An Earlsdon (Coventry) reader once arrived home minus his wife. He retraced his tracks, and found he had decanted her at the corner of Green Lane, some 1½ mile away. She had made a pancake landing on her face, and the trailer was incontinently sold. Another reader much enjoyed his first ride on a trailer, but forgot its presence when negotiating the narrow gate at the side of his villa. He says the trailer uprooted the gate posts; but with my vivid memories of the virile engines then current, I am prepared to bet that the engine immediately stopped, and that no damage was really done. Mr

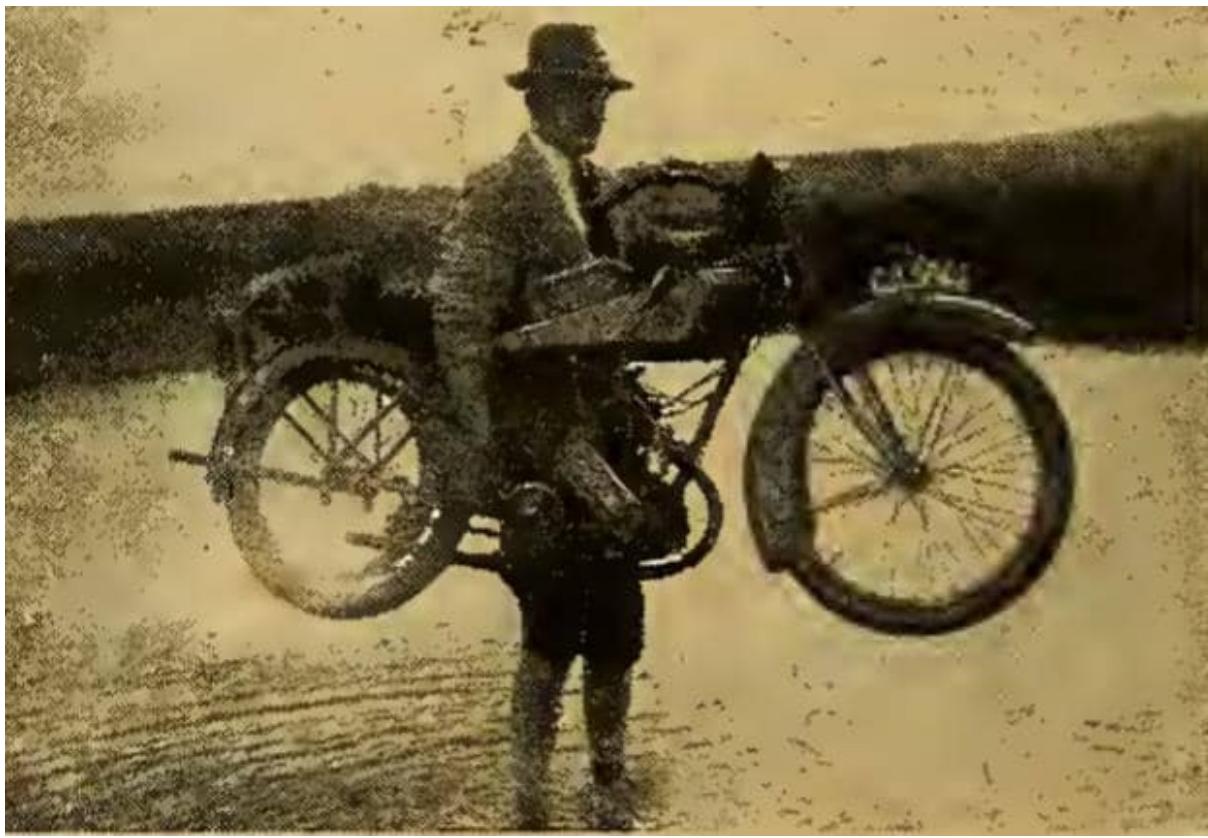
Victor Holroyd, of Rudge fame, confesses to having taken out a trailer containing his daughter, and having shortly become oblivious of the appendage. He cut corners, dodged under horses' tummies, and performed such stunts as a young rider will. When he got home, the youngster remarked, 'Mamma, father *can* drive!' You have all heard of a 'flat spot' in the mixture. Well, there is still a flat spot on the back of my head; and anybody who has ever been seated in a fast trailer when the connection snapped will testify that no physical event can possibly be more instantaneous than the resultant 'biff' on the rear of the skull; there is no time to swear."



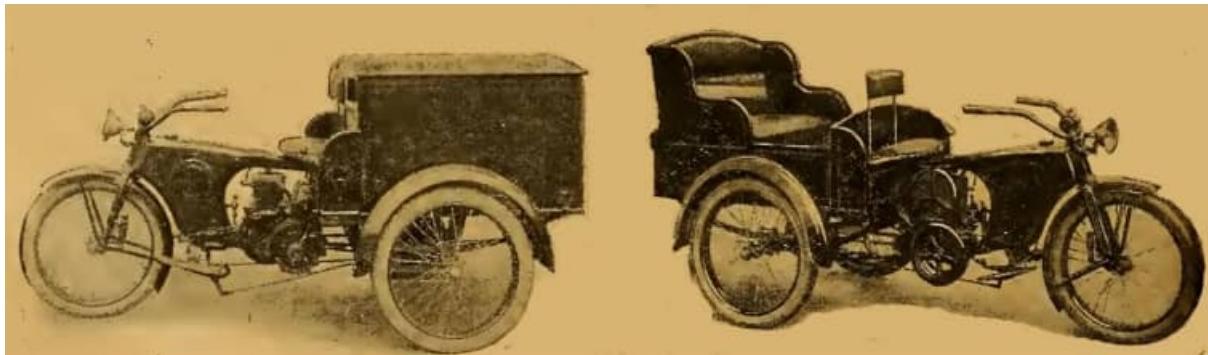
"On the worst hill in Wales. Screw Road (the famous North Wales test hill 'find' of *The Motor Cycle*) is so steep on the corners that the spectators of the sidecar attempt depicted above did not sit down; they simply leaned against the hillside! Incidentally, the hill is becoming a very popular testing ground for new models."



“Although only weighing 75lb, this little machine—the 160cc McKenzie—successfully accomplished an ACU observed test from London to Exeter and back. The illustration shows the rider, WF Smith, at the finish of his ride.”



"This South African motor cyclist evidently thinks discretion the better part of valour, and is taking no risks with his little Cedos in fording the river, preferring to carry the machine and keep his engine running."



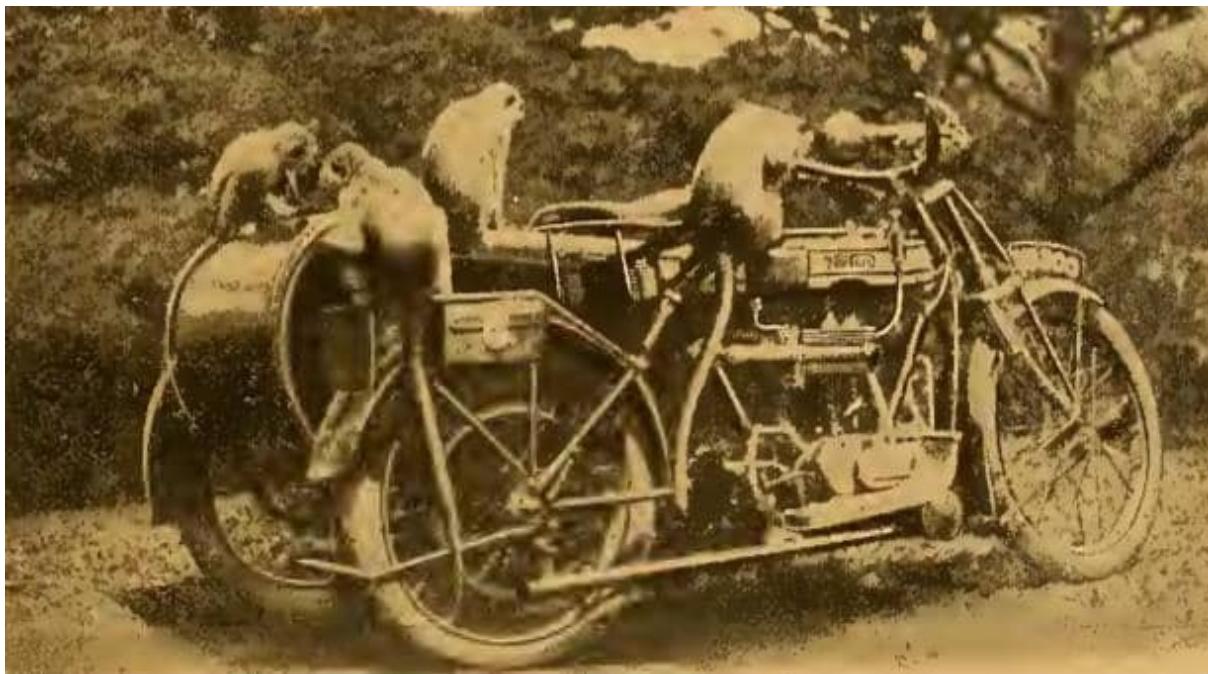
"A double-purpose tricycle, made by the Dobbin Motor Co, of New York. The rear seat can be quickly detached and replaced by a box body of ample proportions. The engine is a 550cc two-stroke, carried on a pressed steel frame."

"THERE WAS AN INTERNATIONAL CONFERENCE of the FICM at Milan at the beginning of last week. The following countries were represented: Italy, England, France, America, Belgium, Holland, Switzerland, and Spain. Sixteen delegates in all were present under the chairmanship of Count Bonacossa. A sub-committee was formed to investigate the organisation and classifying of records, and the international records broken during the last year were submitted for sanction. All the British claims were passed, and were, incidentally, 92% of the total. Records in America showed the figures of 104.34mph for 10 miles and 101.32mph for 50 miles. These were made by Otto Walker (Harley-Davidson) at Fresno, California. Other fine times were E Hepburn's (Harley-Davidson) 100 miles at 88.4mph, 200 miles at 87.02mph, and 300 miles at 85.7mph. French records included Lombard's 75.85mph on the Salmson. Scooters, lightweight

sidecars and two-seated sidecars have all gained international recognition, the following additional classes being instituted: Class Z, motor-assisted bicycles not exceeding 125cc; Class Y, motor scooters not exceeding 175cc; Class B-S, sidecar machines not exceeding 380cc; Class J-1, single-seater sidecars not exceeding 750cc; Class J-3, two-seater sidecars not exceeding 780cc. The following definitions were approved: A scooter is a motor-propelled vehicle carrying a platform, no part of which is less than 30cm from the ground, and has a minimum length of 20cm. A motor assisted bicycle is a vehicle having two or three wheels, provided that, if with three wheels, the third is used for propulsion only, whether it is operated by the driver and/or a motor. It is proposed to form a representative governing body of motor cyclists in Spain. The Spanish Government paid the expenses of the Spanish delegates, so great is its interest in the movement. These proceedings lasted until lunch time on Wednesday, when the delegates were entertained to lunch by Count Bonacossa at his chateau. A visit to the Touring Club of Italy followed, when the members were met by the President, and an excellent set of touring maps was presented to each delegate. A visit to the works of Messrs Pirelli, the tyre manufacturers of Milan, was made on the Thursday...Although not very well known to the average motor cyclist, the FICM is an organisation which does a good deal of important work. The initials stand for *Fédération Internationale des Clubs Motocyclistes*, the French form of the International Federation of Motor Cycle Clubs—a body comprised of representatives of all the principal motor cycle clubs in the various countries, whose delegates meet together about twice a year to discuss matters appertaining to motor cycles throughout the world. Though an international organisation, the FICM is run very largely on British lines, and has taken the rules governing British motor cycle competitions as its model. Its great work has been to compel the running of all international competitions under the same rules (rules which were recently drawn up), to enquire into and pass international records, and generally to look after the interests of motor cycling internationally. Before it was in proper working order, a British rider might take part in a competition on the Continent being absolutely ignorant of the regulations, and suffer injustices—against which he would have no redress. Such a contingency is now impossible, and an English rider who has competed in the English Six Days and the TT can safely compete in any race or reliability trial of an international character in any one of the countries belonging to the Federation, and know for certain that his machine would have to conform to the same conditions as those drawn up for the English classic events referred to above. Each country now recognises the others' competitors' licence, and if a British rider has his licence suspended for any malpractice he would not be able to compete in France or any other country belonging to the Federation. The same remarks apply to an Italian rider who had transgressed and attempted to enter, say, the TT race."

DURING 1921 2,171 MOTOR CYCLES were imported into the UK; exports totalled 8,103. The Motor Cycle estimated there were 350 motor cycle clubs.

"THERE IS ONE MOTOR CYCLE in Germany for every 2,244 inhabitants, while in France, where the population is considerably less, there is one motor cycle per 738 inhabitants."

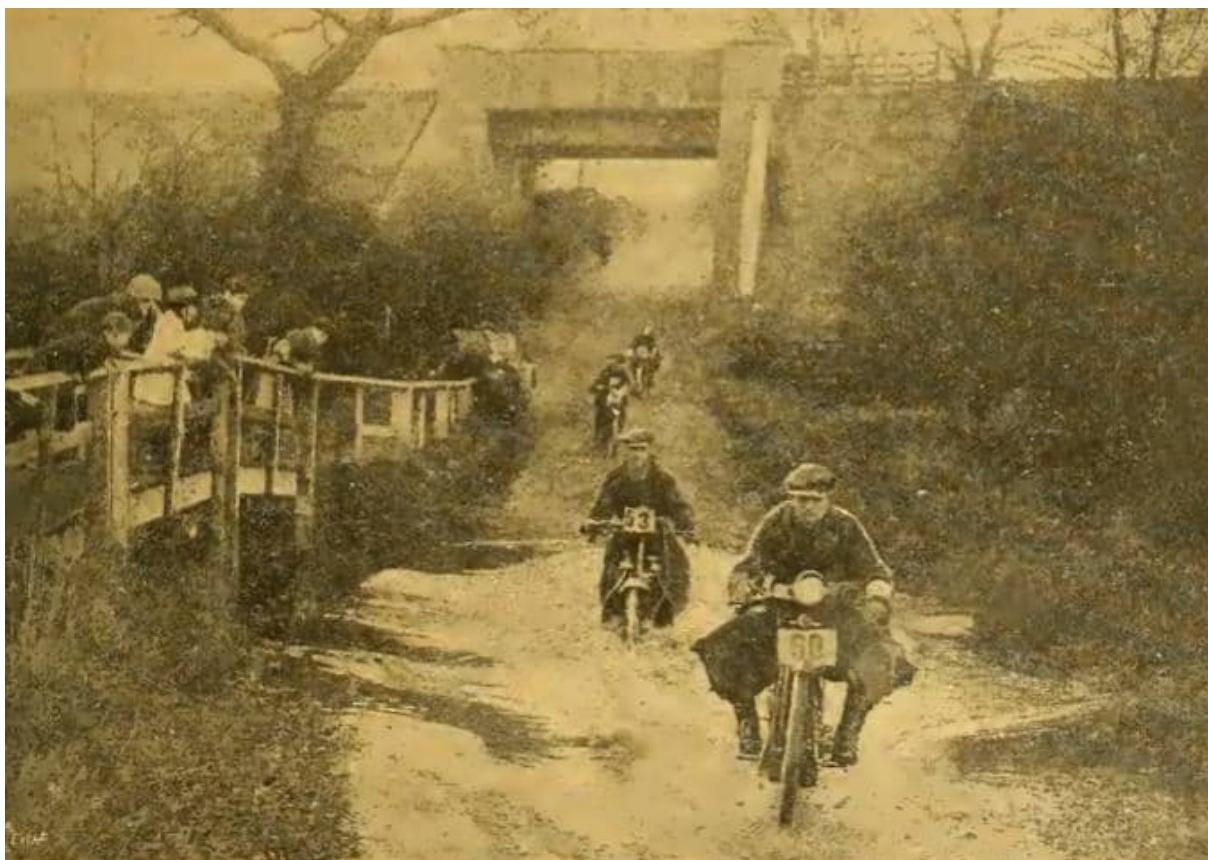


"A snapshot of wild monkeys examining a Big Four Norton. The photograph was taken on the banks of the Umgeni river, South Africa, by Mr JL Norton, who states that the monkeys were shy to begin with, but soon made up their minds that it was a good machine, and settled down comfortably, while he exposed the film." Ixion was clearly impressed: "I was much interested to inspect the prints of this wise veteran surrounded by ostriches and cannibals and other tropical fauna. He has already cabled home to the works for various modifications to be introduced into the export model Nortons, and there is no doubt that his policy is excellent. If the big noise from all our factories were personally to sample overseas conditions and colleague with overseas riders, we would annex a far larger slice of the colonial trade. Mr Norton belongs to the tough old breed whom we don't raise nowadays. He has been a greybeard ever since I have known him (I don't care to add up how long that is), and it is vastly to his credit that at his age he should tackle so exhausting a trip."

CHRISTMAS GREETINGS, 1921.



The Editor and Staff of "The Motor Cycle" Wish all Readers a Happy Christmas and a Prosperous New Year.



"Winter or summer, rain or fair, trial enthusiasm is as keen as ever it was. A scene in the Birmingham MCC Christmas trial. The foremost riders are Brandish (Triumph), Randle (Scott) and Walford (Triumph)."

THE FINAL MAJOR EVENT of the year was the MCC's Exeter trial..."There you are, then!" The idiotically popular catch-phrase of the moment, echoing and re-echoing among a 300 strong crowd of strangely garbed motorists at and around the Bridge House Hotel, Staines, very appropriately expressed the spirit of the occasion—the start of the MCC London-Exeter-London run...The 1921 event assumed more than ever the nature of a gigantic re-union of the keenest motor cyclists in the country. One must be keen to leave a cosy fireside on Boxing Day for the purpose of riding through the night to Exeter, then back, under proverbially severe weather conditions, and by no means over the easiest route. Exactly 200 drivers of solo machines, sidecars, or three-wheelers decided to include a mass visit to



"V GayLord and FC Townshend, riding 3½hp Zenith-Bradshaw machines, leaving Salisbury."

Devonshire in their Christmas festivity programmes and 186 actually started—64 solo, 107 sidecars, and 15 three-wheelers. Of these no fewer than 151 (49 solo, 89 sidecars and 13 three-wheelers) checked in at the finish on the following night, although one or two of these ‘finishers’ had gone no further than Salisbury! It did not actually rain at the start, and some were rash enough to hazard that the long run of suitably wet Boxing nights was at last to be broken. Few of these false prophets were taking any risks in the matter of clothing, however, and if the members of the general public who lined the starting point in two long avenues were entirely disinterested in motor cycles (which, emphatically they were not), they would have spent an interesting time in viewing the variegated clothing schemes. Nevertheless, here and there, were heroes, obviously new to the run, who had casually flung on old coats on the basis perhaps that they had proved effective in the past during an afternoon’s summer rain. The machines and their lighting arrangements were also very varied. Brand new, old, and old and obsolete outfits were indiscriminately formed two deep in a long line leading to Mr Bidlake’s car, when AC Rhodes on a four-valve Triumph, looking ‘straight from the crate’, and GE Cuffe (2½hp Metro-



“AP McGowran (4hp Triumph sidecar), on the lower part of Salcombe Hill. He made a very good ascent.”

Tyler) received the word to go. Thereafter the remainder were despatched in pairs at one-minute intervals, having survived a battery of flashlight photographers, dismal farewells from friends, who were ‘going by car for a change this year’ (!), and queries of ‘What petrol (carburetter, plug of chest-protector, etc) are you using?’ BFC Fellows’ 2¾hp De Dion Bouton of 1899 vintage was undoubtedly the oldest machine, but it was too well modernised to be the least modern. For example, W Hill’s 8hp Chater-Lea sidecar outfit was very much pre-war and, despite a carrier that came ‘unstuck’ every quarter of an hour or so, with the inevitable consequences to a cheap acetylene tail lamp, it completed the run with remarkable consistency, failing only on Salcombe...There were also several fairly ancient Triumphs and a far from new 2¾hp Zenith. Among the other machines that attracted special attention were SS Debenham’s 10hp Campion, which was fitted with a Jardine four-speed gear box; J Wallis’s 7-9hp Reading-Standard, which hauled two full-sized passengers in a Plus One sidecar; Neville Hall’s little two-stroke OK outfit, upon which he made a star performance; the 4¼hp Beardmore-Precision, driven by Eli Clarke, jun, who, however, experienced much bad luck; and the three Ner-a-cars...Since the procession of competitors extended to nearly 60 miles along the road, it is impossible to say definitely where and when it started in real earnest to rain. But nobody crossed Salisbury Plain without getting his share, and, for most, those dreary stretches before and after the supper stop at Salisbury itself were a continual battle with the elements. A high-

pressure gale from a three-quarter front direction bore the water in sheets against the riders, made driving almost dangerous for the soloists and most unpleasant for all, and ruined the reputations of several waterproof coat manufacturers...Hot coffee, as usual, at Moffatt's garage was something to look forward to; then even the weather gods cheered up, and when Chard Hill was climbed (by 99% successfully) it was once more dry overhead. There was a check at



"Competitors at the White Hart Hotel, Salisbury, about to resume the journey. The lady passengers looked particularly comfortable, thanks to the efficient weather protection of modern sidecars. (Right): About the same age as its driver, BFC Fellowes' De Dion-engined machine is well-known at the MCC long-distance runs."

the summit, and another at Honiton. Peak Hill, ascended just before dawn, was in an extremely bad condition, and skids and wheel slip respectively caused many solo and sidecar failures...Much of the next 13½ miles to Exeter consisted of extremely slimy, narrow, and twisting lanes, and falls were common occurrences. Two hours and a quarter were allowed for breakfast, and a start was made on the return journey. Forebodings regarding Salcombe Hill proved not unfounded...Among the soloists, the lightweights were both best and worst, although the majority of those that were fully expected to fail had retired long before!...Through Lyme-Regis, Dorchester and Blandford to the lunch stop at Salisbury bright sunshine cheered the sleepy drivers and warmed the sleeping passengers. Little batches of local motor cyclists were congregated on almost every up-grade to witness the passage of the competitors, and by the eager way in which they followed every movement they were obviously making most absorbing comparisons of the various machines' 'hill-climbing' capabilities. This greatly amused most of the drivers, who 'TT-ed' up each of these (unofficially) observed sections with much danger of getting more than 15 minutes ahead of schedule...Only an hour was allowed at the lunch stop, and the travel-stained survivors were despatched on the last lap over the same route as the previous night, but, of course, in the reverse direction. All had to light up before arrival at Staines, and the last 20 miles were rather difficult to follow. G Brough (8hp Brough Superior), although actually 'No 3', contrived, without imperilling his 15 minutes ahead allowance, to arrive first, much to the delight of the spectators and the daily newspaper reporters, some of whom obviously fondled the idea that the event was a race. Claim cards were signed—these were intended to help the club to eliminate the unsuccessful without unnecessary delving into statistics—number plates returned, and the strenuous 319¼ miles run became a thing of the past. All honour to the finishers!"

As usual, let's close the year with a selection of contemporary adverts...

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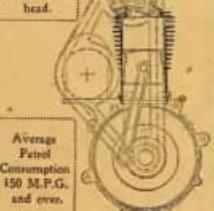
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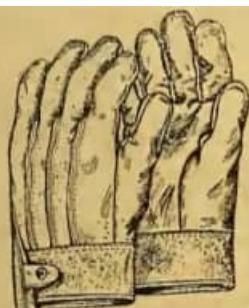
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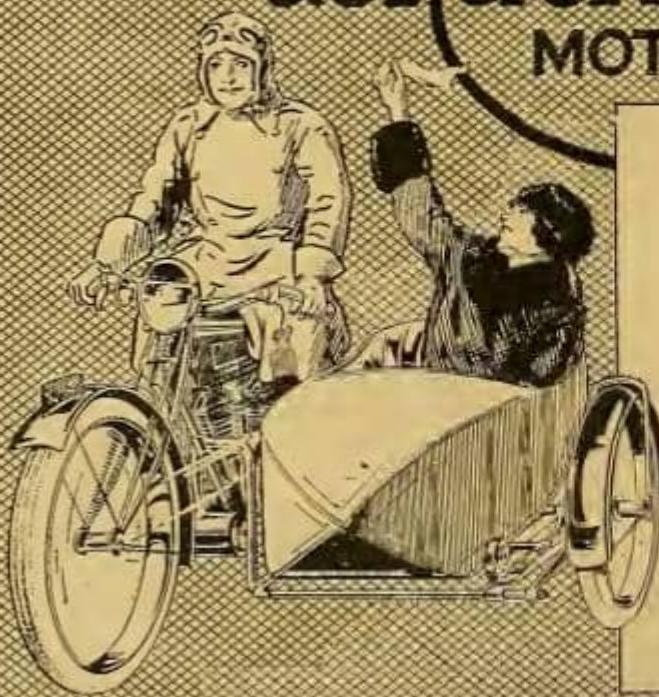
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can be depended upon to carry you "there and back" without trouble of any kind and in perfect comfort. Get a Blackburne Motor Cycle for

POWER, SPEED, ECONOMY, RELIABILITY, and LONG SERVICE.

But it must be a Blackburne.

Write for full details, catalogue and latest news.

BURNEY & BLACKBURNE, LTD.
(Dept. 1), 38, Conduit St., London, W.1
Telephone: Mayfair 637.

SIDE-CAR HEATER.

List No. S18/115
Price complete 45/-

MOTOR CYCLING HELMETS

ensure protection against cold and rain, and greatly facilitate comfortable riding during the winter months.
In tan leather lined Llama wool. Fitted protective ear rolls.
List No. C47/16 8/10 each.
List No. C47/12 Lined satin. 7/6 each.

THE "CELERIO" SIDE-CAR HEATER & HAND WARMER

is a great boon for long distance or night riding. It consists of a foot muff and a hand warmer. The muff is lined with thick, warm felt, and heated by pure hot air from the heater, which is attached to the motor cycle exhaust pipe. All fittings are heavily plated, and the apparatus is easily and quickly fitted

THE 'DUCO' GREASE GUN

By reason of the special construction of the plunger, can be used for injecting grease by force—and oil or spirit (by air pressure)—the latter being sucked into the syringe by means of the upper inverted washer. 7½ in. long x ½ in. dia. List No. S75/34, 2/3 each.

"CELERIO" MOTOR CYCLE WATCH

is most reliable, and as illustration shows, is neat in design. Complete with handle-bar clip fitting, nickel-plate or black. List No. W2/27, 17/6 each.

These Accessories are obtainable from all Garages and Motor Dealers.

MASCOTS.

This Indian Head Mascot in solid bronze is of exquisite finish, and beautifully chased and enamelled. Commemorative of H.R.H. The Prince of Wales Canadian and American Tour, 1919. List No. M17/16. Enamelled, 25/- each.

Brown Brothers Limited

With which is amalgamated Thomson & Brown, Bros., Ltd
WHOLESALE ONLY.

Head Offices and Warehouses.
GREAT EASTERN ST., LONDON, E.C.2
118, George Street, EDINBURGH.
Branches—Aberdeen, Birmingham, Cardiff, Dublin, Glasgow, Leeds, Manchester, Newcastle, Southampton, and Paris.

No More Punctures!

You will never again be stranded with a punctured tyre — never again dread bits of glass, flint, and nails, if you fit the TUBE PROTECTOR. The Tube Protector is a flexible layer of thin pieces of hard metal (arranged as in a coat of mail) enclosed in canvas, and fits between the outer cover and the inner tube of your tyre. No matter what sharp matter pierces the outer cover, it cannot penetrate the Tube Protector — cannot possibly pass through to the inner tube.

The Tube Protector is easy to fit, is light in weight, and causes no friction. It allows you to wear down the outer cover to almost nothing. Think of the saving in time, money, labour, and patience.

Ask your dealer to fit TUBE PROTECTORS to your motor cycle tyres.

Note the Flexible layer of PROTECTIVE MAIL

If you would ride in Comfort see the **COLLEGE Weather Protection Devices.**

ALL WEATHERS

STAND 231 GALLERY.

All Prices Greatly Reduced.

COLLEGE LEATHER CO., NORTHAMPTON.

Tube Protector

Liberal terms to factors and retailers.

PROTECTORS for MOTOR CYCLES 17/11 each.

Sole Agents : **A. Stuart Morris & Co.,**
Head Office : 101, Leadenhall St., E.C.3

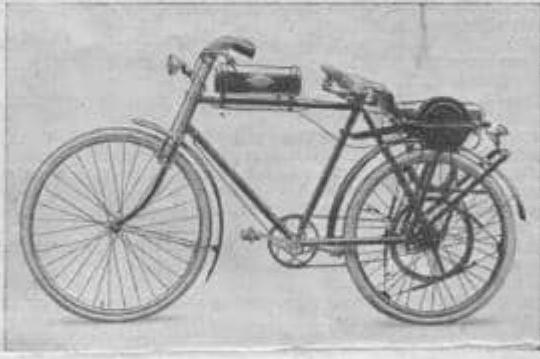

 ECONOMIC
 MOTORS LIMITED

CURRENT PRICES.

FOR Unit de Luxe 22 Guinea.
COUNTRY Motor Cycle Gents TOWN
JAUNTS Motor Cycle Ladies TRAVEL

"RIDE EASY"
 ON AN

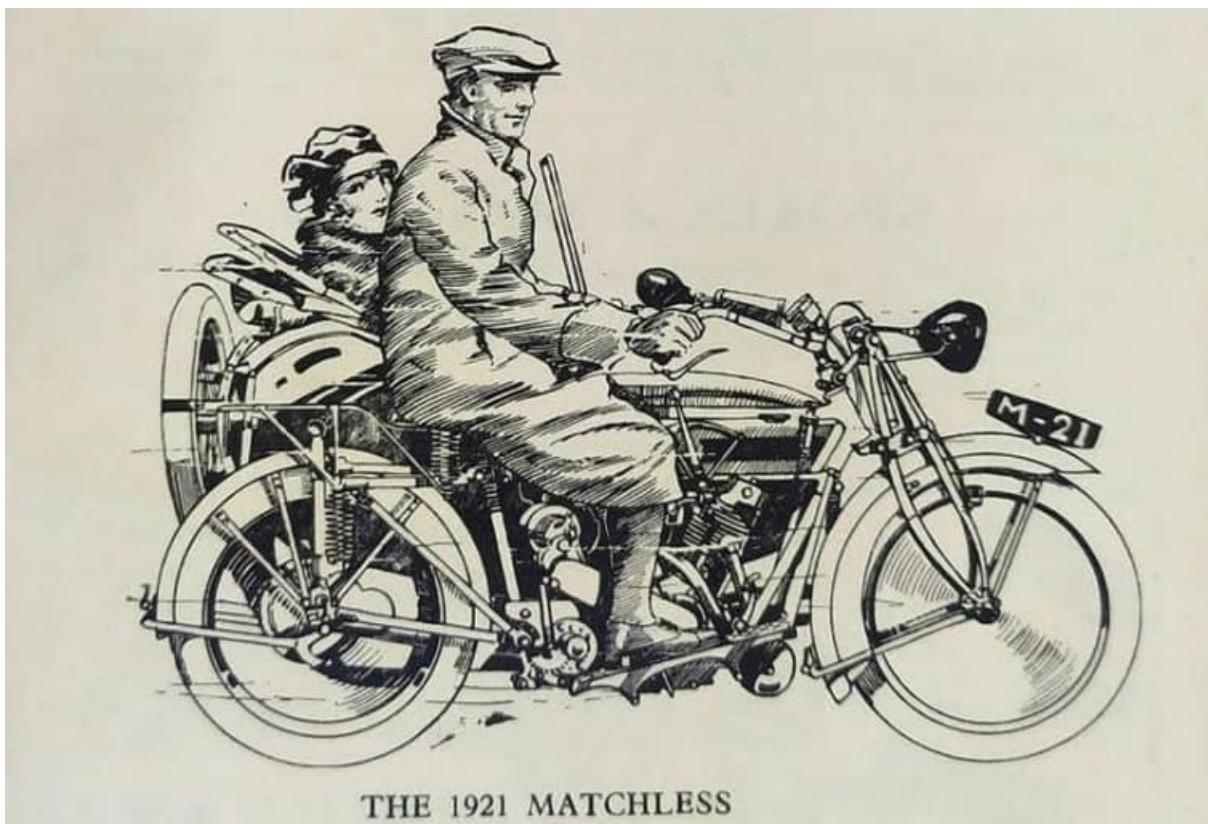
"ECONOMIC" Babyweight MOTOR CYCLE.



Gentleman's Model.

ECONOMIC MOTORS, LTD.,
 62, EAST CASTLE STREET, OXFORD STREET, LONDON, W.1.
 TELEPHONE: MUSEUM 2209.
 TELEGRAPHIC ADDRESS: "CLUTCHING, LONDON."
 Directors:—
 H. Robinson, G. Garsigne,
 S. Henton, F. Lucas.


 ECONOMIC
 MOTORS LIMITED



THE 1921 MATCHLESS

This rather fine artwork was produced as the illustration for a Matchless advert.

GAMAGES

THE PREMIER MOTOR CYCLISTS' STORE OF THE WORLD

N.B.—Money
returned in
full if you are
not satisfied.



**MEN'S
WOOLLIES**

(as illustration).
A really good cardigan coat,
slightly brushed, with two
pockets and ribbed borders, in
Canary and the new Maize shade.
The ideal golf coat. Must be
cleared. Worth 30/- **21/-**
Post 6d.

SLEEVELESS WOOLLIES.

A cardigan coat without sleeves,
having perfect free 'em to the elbow.
Made with two pockets and woven
border, in brown, canary, camel,
and grey shades.

Special Price Post free **17/11**
With contrasting coloured border
Well worth 18/- to
you. Post free....

18/11

KNICKER HOSE

Brushed. In
Heather and
Lovat Grey,
with neat
fancy turn-
over tops.

Worth 6/11.
4/11

Post 4d.



The "TT" Safety Helmet

Previously used
at the T.T. Races,
Isle of Man, 1914,
1915, and 1916.
Price complete
55/-

Write now for our
latest
**MOTOR CYCLISTS'
NEEDS LIST**
sent post free on
request.

"Brooklands" HELMET

In fine selected silks.
Neat fitting flap,
opening or closed as
desired, and can be
neatly rolled. Buckle
and strap chin fasten-
ing. Fleshy lining.

Our price **6/6**
Post 4d.

THE CYCLE CAP
C.A.P.
Fawn. Waterproof
Light weight. Ear and
Neck Flaps.
Also in Holland
Crash material... **4/6**

10/6



THE "DOUGLAS" SUIT

Specially recom-
mended for Motor
Cyclists, consisting
of double-breasted
Jacket and Leggings,
with garter front as
illustrated. Strong double Texture
in Fawn. Suit complete..... **47/6**
Superior quality, 60/- Send chest and inside leg
measurement.

SEATLESS TROUSERS

only, with full protection to the body **20/-**
Superior quality **25/6** per pair.



GAMAGES, HOLBORN, LONDON, E.C.1.

"GRIPPIO"

The Quickest
ADJUSTABLE WRENCH
in the Wor'd.



Fits every size and
shape of Nut, Pipe,
or Bolt.

The Handiest Tool
for Motor-Cyclists
ever invented.

Instantly adjusted
by the mere pres-
sure of the thumb.

The last ounce of
power applied in a
fraction of a second.

The Wrench 8in. size.
that does not Grey Finish or Plated

Monkey 7/11
with the post free.

Nuts. Orders filled by return

Other sizes.

Prices on Application

Tested and Approved for 12 months.

"MONEY BACK" GUARANTEE

We undertake to exchange any Wrench bearing
our Trade-mark, which proves unsatisfactory—or
to refund purchase price in full.

DON'T DELAY
WRITE TO-DAY

The Patent "Grippo" Wrench
and Spanner Co., Ltd.,
12, Hackins Hey,
Dale Street, Liverpool.

Punkho

makes puncture trouble impossible and it preserves rubber.

Send for Pamphlet and Proof.

Read this Extract
from
E.M. BOXMORE:

"I have taken out several thorns without the tyres being deflated."

PRICES:
No. 1 size, 4/-; post free, 4/6.
No. 2 size, 7/-; post free, 7/6.

HARMEN'S (Motor Agencies)
LTD.,
10, New Cavendish St., W.1

The Watkinson Northedge Emergency control. Invaluable to all motor cyclists, whether out for business or pleasure. Fixed in a few minutes by any novice. Can be used by all motor cyclists using Bowden Wire controls for throttle, air clutch, etc. No more wondering what to do when your throttle wire breaks, simply fix one of our controls and avoid any further trouble. Price 10/6.

WATKINSON & NORTHEdge,
Cycle and Motor Cycle Repairs, Dealers, etc.
Palatine Villas, MORTON, Nr. Alfreton.

TRANSFERS

FOR ALL PURPOSES.

Write for specimens and quotations.

N.B.—We cannot supply makers' own transfers to individuals.

THE BRITISH TRANSFER PRINTING CO., LTD.

(Proprietors: Uliffe & Sons Ltd.)

QUINTON ROAD, COVENTRY.



**GENUINE SALE
of
SHOP-SOILED
and
SECOND-HAND
MOTOR CYCLES**

6 h.p. A.J.S. Combination, 1920,
hardly used, lamps, horn, spare
wheel, Easting screen, etc., tax paid.

6-7 h.p. B.S.A. Combination, 1921,
slightly shop-soiled, lamps, horn,
spare wheel and tyre, hood, screen,
tax paid.

LEVIS "Popular", late model,
complete with accessories.

No reasonable offer refused.

First cash secures.

Large stock of Douglas spares.

TRADE SUPPLIED.

Immediate delivery of models,
DOUGLAS, LEVIS, B.S.A., etc.

We have actually in stock a
brand new 1921 Model 3½ h.p.
Overhead Valve Douglas.

Price £150.

Call or 'phone for full particulars.

Showrooms wholesale and retail,

23, 24, Woodstock St.
off Oxford Street,

New Bond Street,
London, W.1.

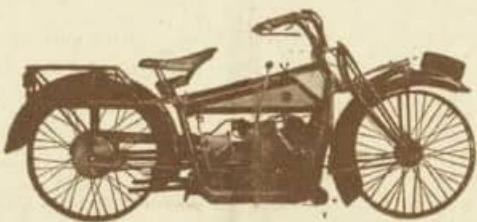
Phone : Mayfair 6539.
Grams : "Thardian, Woods, London."

Touristes !

Paris-Nice,

La première grande épreuve de tourisme a été une victoire de

La Motocyclette **A.B.C.**



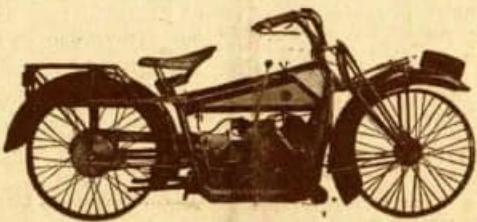
Société Française des Moteurs A. B. C., 118, rue La Boétie, PARIS

Touristes !

Paris-Nice,

La première grande épreuve de tourisme a été une victoire de

La Motocyclette **A.B.C.**



Société Française des Moteurs A. B. C., 118, rue La Boétie, PARIS

A·J·S

Consistent Reliability

The performance of the A.J.S. in the recent A.C.U. Six Days' Reliability Trials was a remarkable demonstration of

EFFICIENCY and RELIABILITY.

Two Teams were entered, consisting of **three 2½ h.p. Solo Models** and three 7 h.p. Side-car Combinations. These made The Best Performance in their respective classes and Won Both Team Prizes and **6 GOLD MEDALS.**

Write for fullest particulars.—

A.J. STEVENS & CO
(1914) LTD., GRAISELEY HOUSE, WOLVERHAMPTON.

London Agents: H. TAYLOR & CO. LTD., 88 New Bond Street, South Kensington, S.W.1

The A.J.S. Lightweight Team in the A.C.U. Six Days' Trials Winners of the 350 c.c. Team Prize.

ALCYON
LIGHTWEIGHT

Unexcelled.

ALWAYS FIRST.

The Foremost Lightweight,

Circuit De Molun (127 Miles).

ALCYON FIRST.

Gometz le Chatel Hill Climb.

ALCYON 1st, 2nd & 3rd (Class II.)

A.C.U. SIX DAYS' TRIAL.

Special Medal for the Most Meritorious Performance.

12 World's Records with a 247 c.c. Engine. 7 in Class A
(limit 275 c.c.), 5 in Class B (limit 350 c.c.).

A.C. SOCIABLES New & Second-hand
REPAIRED.

A.S.L. MOTOR CYCLES.

G. N. HIGGS, 31, Vauxhall Bridge Rd., London, S.W.

MOTO BLÉRIOT



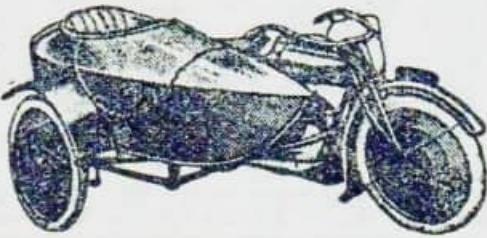
ELLE NE ROULE PAS
ELLE VOLE

Blériot Aéronautique

3. QUAI GALLIÉNI — SURESNES

CL. OFFICE d'ED. d'ART

BLÉRIOT



Modèle adopté par la Préfecture de Police de Paris

BLÉRIOT-AÉRONAUTIQUE

3, Quai du Général-Gallieni, SURESNES (Seine)

PARIS - LES PYRÉNÉES - PARIS

2.000 kilomètres

L'épreuve de tourisme la plus longue et la plus dure



affronte l'épreuve avec ses fameux sidecars mono 5 HP et son nouveau sidecar 2 cylindres 6 HP et gagne avec ces modèles de série

DEUX MÉDAILLES D'OR

pour parcours complet sans pénalisation

BREESE 1^{er} Catégorie Sidecar 600 RENARD 1^{er} Catégorie Sidecar 1000
(avec 557 cent^e) (avec 770 cent^e)

Gagne encore le prix d'équipe pour sidecars et cyclecars

LA COUPE DES PYRÉNÉES

Et s'adjuge toujours

LE PRIX DU MOTO-CLUB DE BORDEAUX

(Sidecar de plus faible cylindrée ayant fait l'étape des Pyrénées sans pénalisation)

LE PRIX DU MOTO-CLUB DU LOT-ET-GARONNE

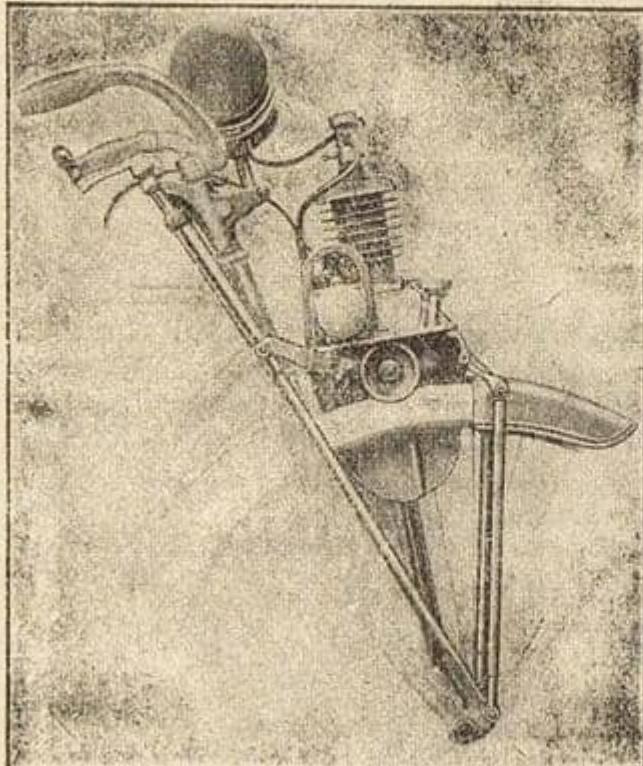
(Sidecar le mieux gréé en tourisme)

MOTOCYCLISTES, concourez !

BROWN

BROS LIMITED. AGENCIE DIRECTE B. S. A.
31, Rue de la Folie-Méricourt — PARIS

Le
Cyclotracteur



**MOTEUR
AMOVIBLE
pour Cycles**

:::::: Breveté tous pays :::::

Lauréat du Concours Lépine

::: Médaille du T.C.F. :::

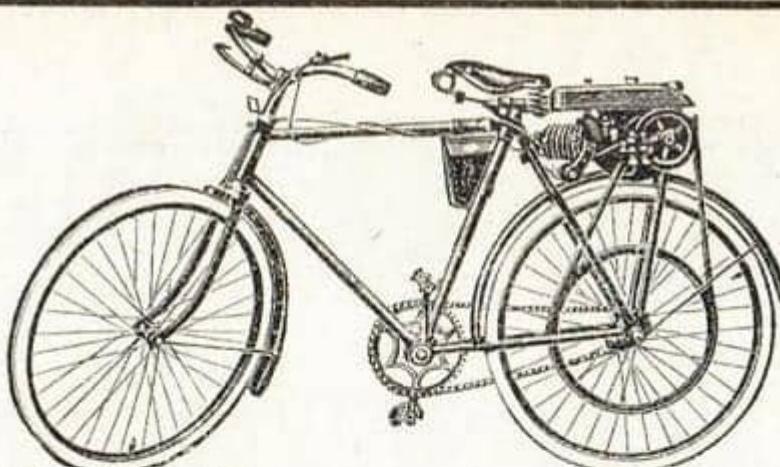
En vente chez tous les
Agents de Cycles

Notice franco

COMPAGNIE FRANÇAISE DES AUTOMOBILES DE PLACE
CONSTRUCTEUR

2, Place Collange — LEVALLOIS-PERRET

Magasin de vente : 19, rue Baudin (Levallois-Perret)



VELOCITÀ: 35-40 Km. all'ora
PESO: Kg. 14 - FORZA: 2 HP.

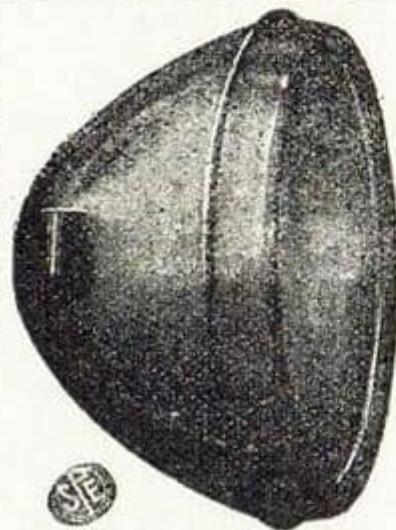
CONSUMO: 1 Kg. benzina
1 litro olio ogni 90 km. circa.

Motorino D. H. W. per ciclisti

Rappresentanti Generali per l'Italia - Colonia - Egitto - Marocco e Oriente.

MERAVIGLIOSO PICCOLO MOTORE A BENZINA che trasforma qualunque bicicletta in motocicletta, senza modificazione alcuna e senza aiuto di meccanico - Supera forti pendenze - Adattatissimo per furgoncini tricicli - Motore a 2 tempi.

GARANZIA CINQUE MESI



Società Italiana Rappresentanze
Import-Export

S.I.R.I.E. BOLOGNA - Via Parigi, 2
Teleg.: Sirle-Bologna Tel. 1061

Fari elettrici - Fanalini Plafoniere - Klaxons

Trombe a mano - Autovox - Contachilometri - Tachimetri - Indicatori di pendenza - Orologi amperometri e voltometri a mano e per cruseotto - Lampade - Lampadine di qualunque forza e voltaggio - Quadri di distribuzione per cruseotto - Accumulatori per illuminazione e messa in moto - Impianti completi per automobili e motociclette

C.A.V. - BOSCH - GÖERZ

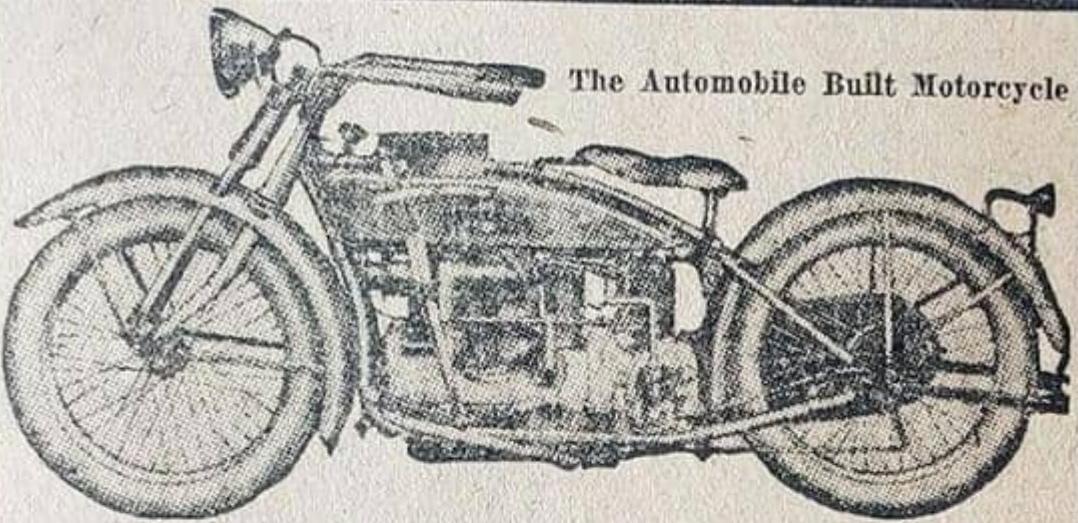
INNOVATION

Accessori di primarie fasi

: Francesi, Inglesi, Germaniche :

Filiali:

PARIGI - VIENNA - BERLINO



The Automobile Built Motorcycle

1921 HENDERSON

The Silent Four

The day of noise and vibration in motorcycle engines is past, as is in automobiles, and a young class of discriminating buyers demand silent efficiency that is only attainable in a Henderson Four Cylinder. Get a demonstration or see the Henderson going by. They are seen but not heard.

1921 EXCELSIOR

The matter of fuel economy has been demonstrated time and again and the mechanical quality is a matter of world-wide reputation.

Ready for immediate delivery.

1921 EVANS-CYCLE MOTOR

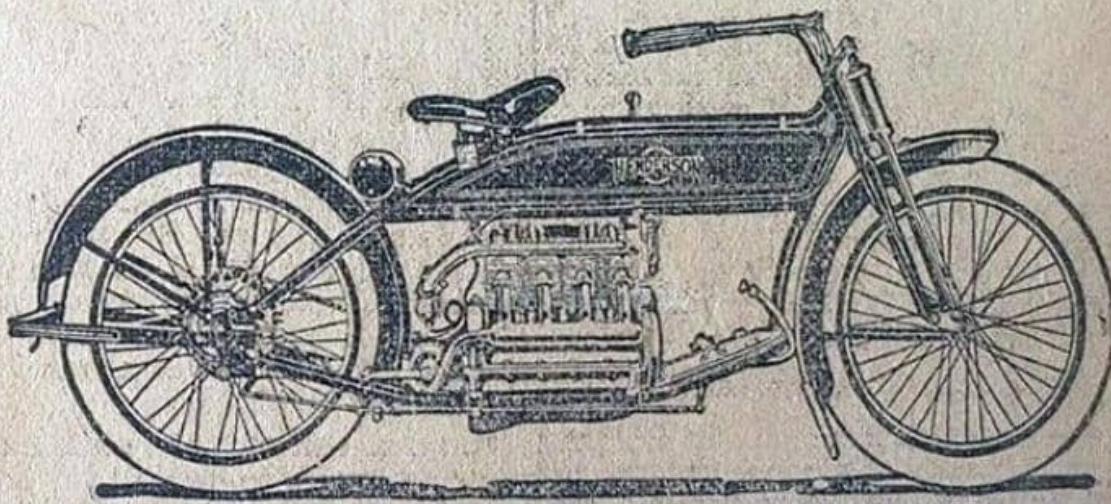
Get a demonstration on a Real Lightweight Motorcycle. Same weight as a bicycle. 100 miles on a gallon of gasoline. Price \$165.

E. H. KASTEN CO.
253 FOURTH STREET

The All-Powerful And Silent

HENDERSON

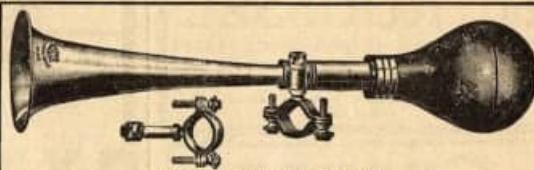
FOUR (4) CYLINDER



TOUTE DERNIÈRE NOUVEAUTÉ
La **TROMPE C.I.C.C.A.** SPÉCIALE pour moto

PUISANTE
ÉLÉGANTE
PRATIQUE

Se place
N'IMPORTE OÙ,
N'IMPORTE COMMENT



PRIX : 30 FRANCS

N° 5.020 — Pour auto. Long. 0°49. Prix. 22 fr.
N° 5.021 — Pour auto. Long. 0°56. Prix. 28 fr.

EN VENTE PARTOUT

MÉFIEZ-VOUS DES IMITATIONS DE PACOTILLE. EXIGEZ LA MARQUE C.I.C.C.A.

Le Catalogue général des Spécialités C.I.C.C.A. pour cycles et automobiles est envoyé franco sur demande

C. I. C. C. A. 41, RUE CHARLES-LAFFITTE, A NEUILLY-SUR-SEINE

MOTOCYCLISTES!
L'AVERTISSEUR
qu'il vous faut
c'est la
TROMPE
C.I.C.C.A.
Spécialement
construite
pour vous
Prix
30 fr.
MÉFIEZ-VOUS
des IMITATIONS
EXIGEZ le marqué C.I.C.C.A.
EN VENTE PARTOUT
C.I.C.C.A. 41, rue Charles Laffitte, Neuilly-s-Seine
Téléphone : Wag. 28-02.

CONSTRUCTION FRANÇAISE

LABOR

CYCLES :: MOTOS

La Machine LABOR, Type TROPHÉE DE FRANCE,
est la monture des jeunes gens parce qu'elle est
ROBUSTE — LÉGÈRE — RIGIDE

*Elle a permis à DEMAN, qui
seul montait une LABOR,
de gagner brillamment BORDEAUX-PARIS en 1914*

GRANDE BAISSE DE PRIX
SUR LES BICYCLES

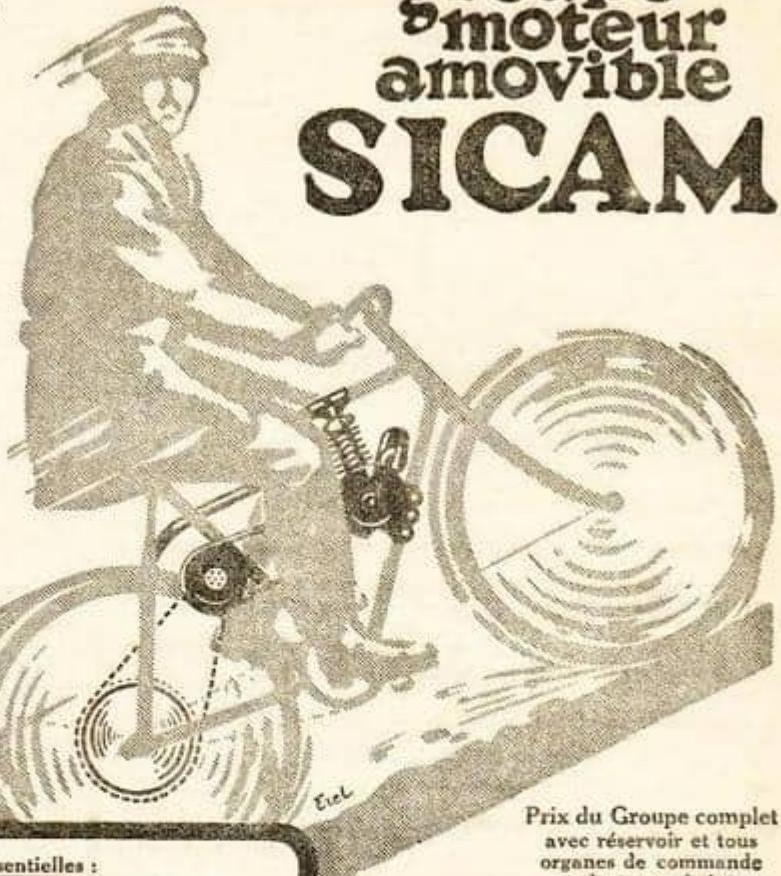
CATALOGUE FRANCO SUR DEMANDE
à LABOR, 4 bis, Boulevard Bourdon, à NEUILLY-s-SEINE, et aux Représentants

**Le groupe
SICAM
supprime
l'effort**

Une bicyclette ordinaire est transformée, en une demi-heure, en une bicyclette à moteur donnant une vitesse de 30 kilomètres à l'heure et ne demandant une aide, d'ailleurs légère, que pour des côtes exceptionnelles.

**groupe
moteur
amovible**

SICAM



Caractéristiques essentielles :

Moteur SICAM, sans soupapes (*Brevets Violet*), monté sur billes, le plus simple, le plus souple et le plus durable. Consommation : 1 litre 1/2 d'essence et 125 gr. d'huile aux 100 kilomètres.

Graissage par incorporation de l'Huile à l'Essence.

Deux Épreuves, Deux Succès:

Course de côte d'Argenteuil (11 avril 1921) 1^{er} en 3' 24" 3/5 1921), 2 kil. atteignant parfois 10%., sans pédaler. Championnat de France, 100 kil. (5 juin 1921) : L'équipe SICAM enlève la 1^{re} place et gagne la Coupe de régularité.

Prix du Groupe complet
avec réservoir et tous
organes de commande
et de transmission :

900 frs

Frans de port et d'emballage pour la France Continentale

**Société Industrielle de Constructions
d'Automobiles et de Moteurs
(S. I. C. A. M.)**

AU CAPITAL DE 2.000.000 DE FRANCS
29, Bd Malesherbes, Paris (8^e)

Démonstrations publiques tous les jours de semaine au Garage de l'Arc-de-Triomphe, 30, r. de Tilsitt, Paris (17^e) de 5 à 7, le Samedi de 2 à 7 et le Dimanche de 9 1/2 à 11 1/2

TRIUMPH

dans toutes les épreuves sportives
affirme la supériorité de sa fabrication

**PARIS-NICE
CIRCUIT DE MARLY
PARIS-PYRÉNÉES-PARIS
PARIS-ORLÉANS-AUXERRE**

ont été courues par une machine choisie au hasard par les représentants de la presse sportive afin de certifier le type rigoureusement commercial de toutes les motocyclettes engagées par cette marque dans les épreuves de tourisme.

Dans toutes les épreuves ci-dessus, la machine en question s'est classée
SANS AUCUNE PÉNALISATION

Dans les trois premières, elle se classe première de sa catégorie,
et dans la dernière elle est deuxième, derrière une autre TRIUMPH,
également de type commercial.

AGENCE DE FRANCE : 212, boulevard Pereire — Tél.: Wagram 04-69

Nous rappelons que seules sont garanties les machines et pièces détachées vendues par nous ou nos agents accrédités. Se mettre en garde contre les nouvelles contrefaçons.

LE "VÉLAUTO" MONET & GOYON

RÉUNIT :

**L'Élégance et la Stabilité d'une Voiture
la Vitesse d'une Moto
et la Simplicité d'un Vélo**

Le "Vélauto" (type 1921) à double suspension et Moteur sous Capot permet des déplacements rapides, agréables, peu coûteux.

Le "VÉLAUTO"

a remporté les Premiers Prix dans toutes les courses auxquelles il a pris part

Grand Prix du SCOOTER-CLUB DE FRANCE (1920 et 1921).

Course de Côte de FLINS ;

Course du MONT-VERDUN ;

Coupe de régularité HUTCHINSON ;

Kilomètre lancé, à GENÈVE ;

Concours de Consommation de

"MOTO-REVUE",

1 litre 1/2 aux 100 kilom.

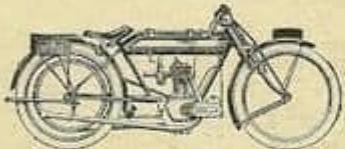
Demander le Catalogue R envoyé franco, à :

MM. MONET & GOYON
61, rue du Pavillon, MACON

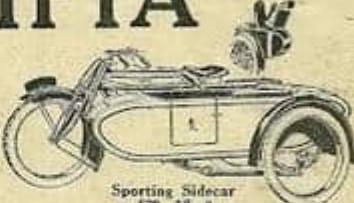


Norton

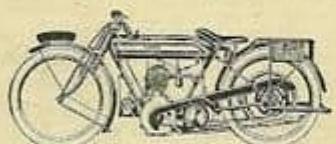
STANDARD MODELS
AT
OLYMPIA



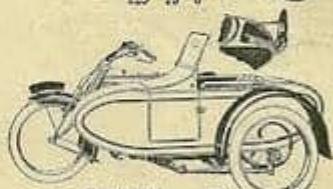
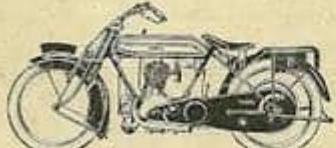
Model No. 8. Direct Belt drive. £80.



Sporting Sidecar £29 10 0



Model 16H. 3½ h.p. 3-speed. £115

Family Sidecar £34
Triplex windscreen and dash. £4 10 extra

Big 4. Model 1. 3-speed.

De Luxe Sidecar £38
Triplex windscreen and dash. £4 10 extra

Do not fail to inspect the wonderful standard machines that have secured hundreds of premier awards, during 1921, in Reliability Trials, Hill Climbs, and other events.

STAND No. 99

NORTON MOTORS, LTD., BRACEBRIDGE STREET, BIRMINGHAM.

In answering this advertisement it is desirable to mention "The Motor Cycle."

MOTOS & SIDECARS

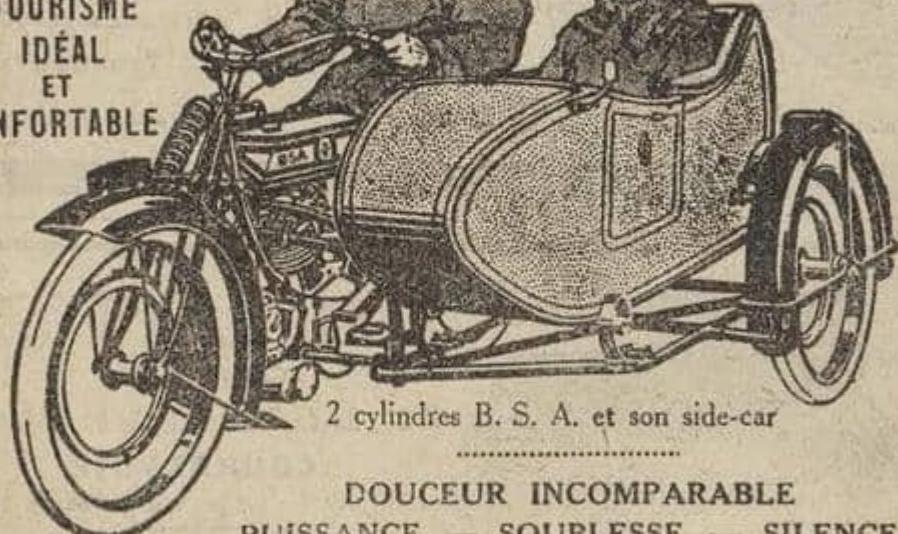
B.S.A.

MONOCYLINDRIQUES 5 HP
DEUX CYLINDRES 6 HP

Conçus, construits et
terminés dans les
ateliers de la B. S. A.
de Birmingham



TOURISME
IDÉAL
ET
CONFORTABLE



2 cylindres B. S. A. et son side-car

DOUCEUR INCOMPARABLE
PUISANCE — SOUPLESSE — SILENCE

Renseignements et Catalogues franco

A L'AGENCE DIRECTE B.S.A.
BROWN BROTHERS LTD, 31, rue de la Folie-Méricourt, PARIS

Tél. ROQUETTE | 39-75
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FABRIQUE NATIONALE D'ARMES DE GUERRE - HERSTAL

F.N.

MOTOCICLETTE

MONOCILINDRICHE - QUATTRO CILINDRI

BICICLETTE A CARDANO

Prenotazioni presso gli

AGENTI GENERALI ITALIA E COLONIE

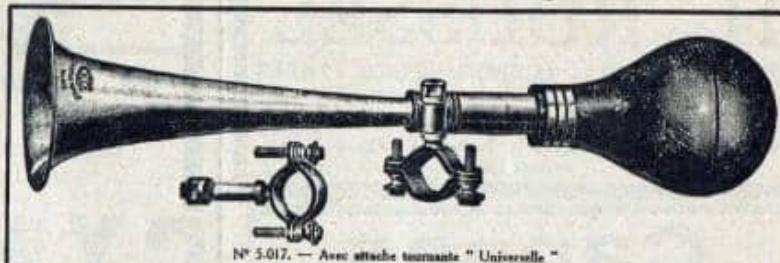
A. FUSI & C. — 31, VIA L. MASCHERONI — MILANO

F.N.

TOUTE DERNIÈRE NOUVEAUTÉ
La TROMPE C.I.C.C.A. SPÉCIALE
pour moto

PIUSSANTE
ÉLÉGANTE
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Se place
N'IMPORTE OÙ,
N'IMPORTE COMMENT



N° 5.017. — Avec attache tournante "Universelle"

La TROMPE C. I. C. C. A. n° 5.017 est étudiée spécialement pour pouvoir se placer avec rapidité à n'importe quelle partie de la motocyclette, en n'importe quelle position. — Son pavillon en une seule pièce est d'une solidité à toute épreuve. — Sa fabrication parfaite est complètement garantie.

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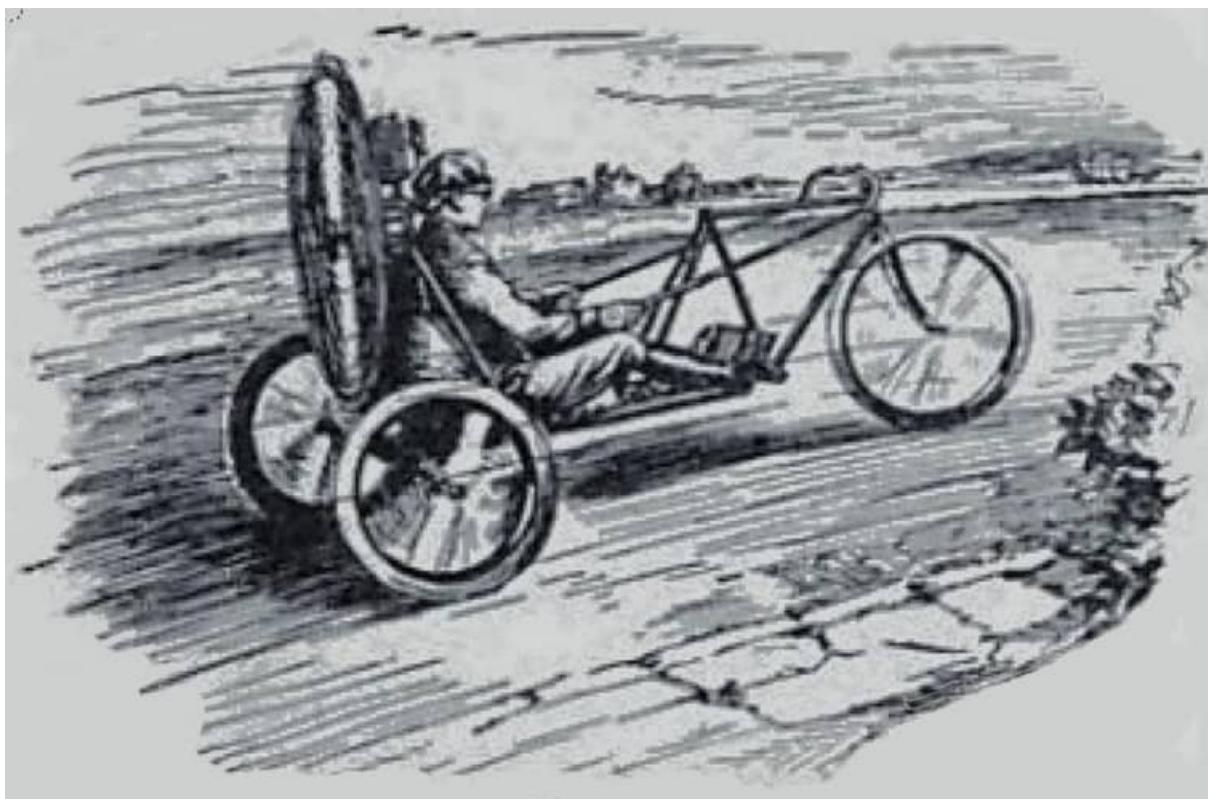
Le Catalogue général des Spécialités C. I. C. C. A. pour cycles et automobiles est envoyé franco sur demande

C. I. C. C. A., 41, RUE CHARLES-LAFFITTE, A NEUILLY-SUR-SEINE

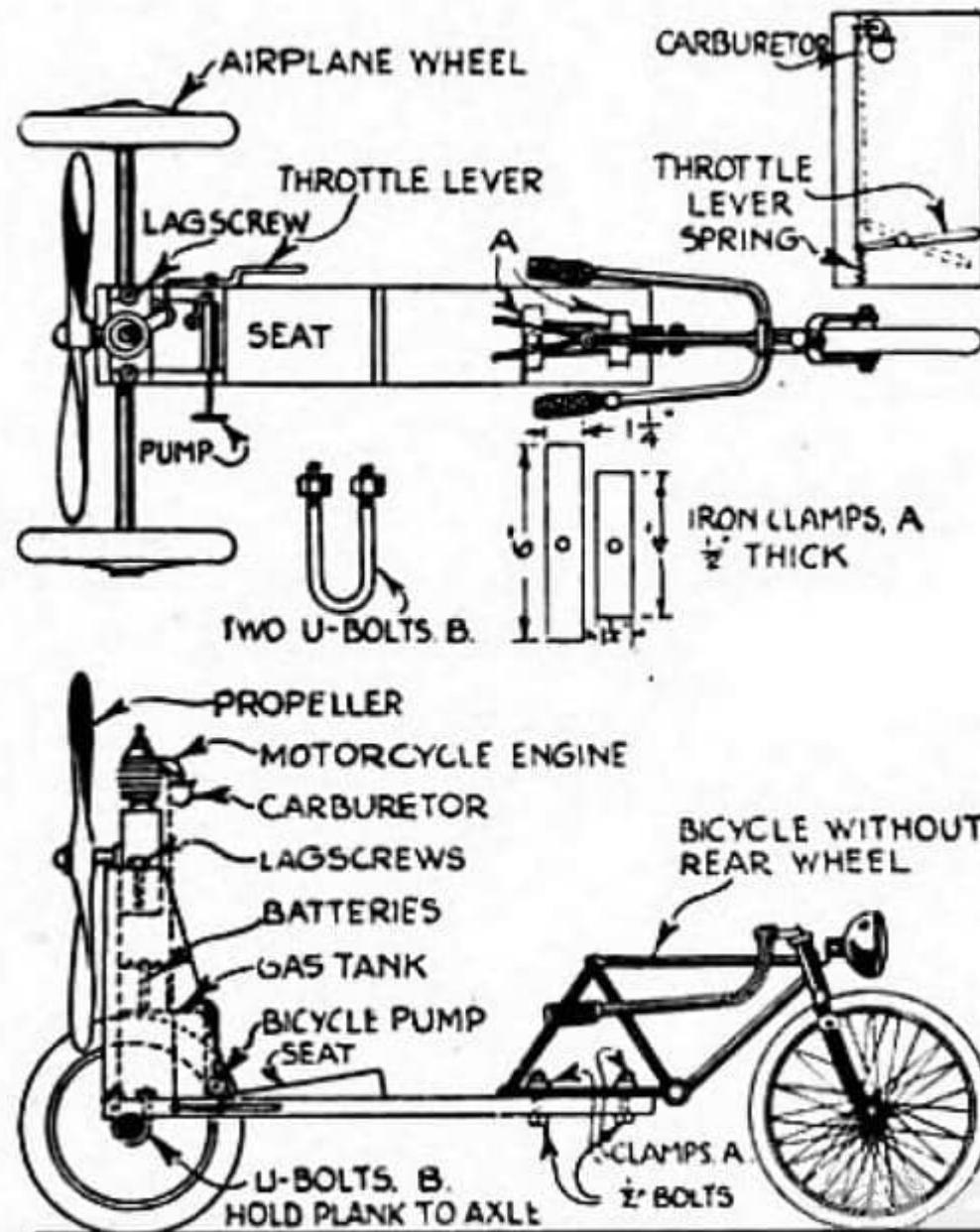
1922

LET'S START THE YEAR with a burst of Ixionic whimsy, this time on the vexed question of tollgates: "Anachronisms. That is the only long word I know. It was a pet word of my colonel's in the great war, and I took it up to curry favour with him. Unfortunately, I didn't quite understand it, and when I applied it to a bad egg, he expounded its true meaning to me at length. It means a tollgate. The other week I remarked that tollgates were moribescent, so to speak—dear me, that colonel has a lot to answer for—and ever since I have had a perfect avalanche of letters from irate motor cyclists, whose jaunts awheel are hampered by these survivals of the Middle Ages. The most pathetic is from a gentleman resident in Barmouth and fiancé to a damsel at Portmadoc. These conditions imply a quite expensive spruceness in personal appearance. Buttonholes. New chamois gloves. Then there are chocolates. Finally, two shilling tollgates in as many miles. And the Government appeals to us to be economical, and lend it our money! Another wistful epistle is signed by a Bachelor of Divinity belonging to one of the Nonconformist denominations. I understand that a padre of this connection usually serves about half a gross of chapels dotted over a huge area. My correspondent labours in a part of the country which simply bristles with tollgates. Here is a chance for the Ministry of Transport to wield the super-axe with great popularity."

WHIMSY FROM IXION COMES as no surprise but on t'other side of the pond even engineers could let there hair down. Here's a weekend project suggested by one Lawrence Hamilton in *Popular Science Monthly*: "A one-cylinder motorcycle engine, a pair of small airplane wheels (or motorcycle wheels), an old bicycle, and a 2inx12inx10ft plank are the materials I used to make this air-driven tricycle. The motor and wheels were bought at a nearby motorcycle shop for \$10. A 5ft. length of the plank was used for the floor of the machine. One end was bolted to the rear axle and the other end clamped to the frame of the bicycle after the rear wheel, seat, hanger, and chain were removed. The clamps were made as shown. The motor mounting, places directly over the rear axle, was made from the remainder of the plank. A piece 18in. long formed the back of the mounting and the sides were two pieces 20in. long, one side of each tapering from 12in at the bottom to 5in at the top. The front was covered with a large board hinged at the side. It gives access to the interior of the motor mounting containing the gasoline tank, batteries, and coil. When closed, this door forms the back of the seat. As the gasoline tank is lower than the carburettor, air pressure is used to force up the gasoline. This is provided with an ordinary bicycle pump. Lag screws were passed through holes in the lugs of the motor into the motor mounting to hold it secure. The only control is a throttle placed on the left side of the seat, arranged so that the left side of the seat, arranged so that upon pressing it down the gas-valve opens, as shown in the diagram. The propeller was made from a No 1 white pine 2×4, carefully shaped and balanced. It was fastened on the crankshaft of the motor by means of locknuts and a pin through the propeller and shaft."



Here's *Popular Science Monthly*'s illustration of Mr Hamilton's prop-driven trike...

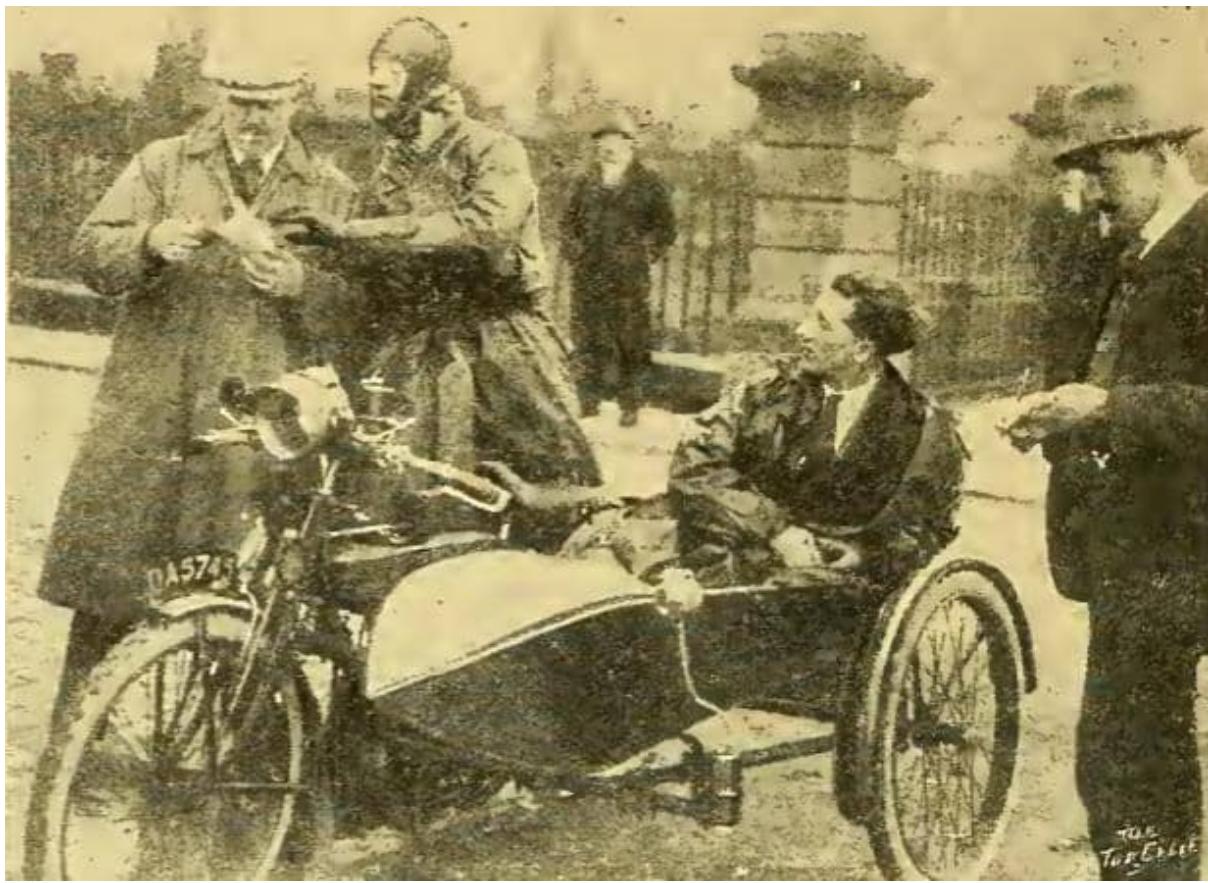


Plan and side view of the tricycle

...and here's

the plan of the trike so you can build your own.

"BRIGHT WEATHER AND GOOD ROADS made the Glasgow Western MCC New Year 'point to point' run to Perth a most enjoyable outing. The run was the same as previous years—to Perth and back, with checks at Stirling both ways. Amongst the competing machines there were several new models, some of which had not been seen in competition on the northern side of the Border before. R Watson was riding a 1922 Martinsyde sidecar outfit, and G Templeton was riding a 3½hp of the same make. The Royal Scot, ridden by J Donaldson, did credit to itself on this its first appearance in competition work. J Bell (7hp AJS sc), who is only fourteen, and his passenger, who is rather less, had difficulty in holding their youthful spirits in check. They confided to our representative on the return journey that they thought these trials tame affairs. Of the 35 starters 22 finished; last year, with a larger entry, only seven competitors finished."



"Geo Kelly (2½hp AJS sidecar) checking in at Perth during the point to point run of the Glasgow Western MCC."

WHILE WORKING FOR INDIAN'S London depot, where he had developed the 8-valve twin, Bert le Vack was sourcing alcohol for esoteric racing fuels from a London distillery. This led to an offer to move to JAP, where Le Vack used his experience upgrading the 1,000cc Indian Powerplus (on which he had won the 1921 Brooklands 500-Mile Race) to produce a 986cc ohv 'super twin' that he called a 'Yank-buster'. The engine became a world-beater; (Indian subsequently dropped out of international competition). The official JAP company history records: "The famous rider, H Le Vack, was engaged six weeks before the TT races, and a conference held to decide if two engines could possibly be completed for the event. It was decided to make the effort to complete two engines in three weeks; a schedule was drawn up allowing so many days for making detailed drawings, patterns, castings, and for machining all parts; the engines were ready 'on the dot'; and Le Vack rode to an immediate success."

"SIR,—THINKING YOUR READERS might be interested, I venture to relate a little experience that befell me the other evening when returning from a run. After slowing up near Hammersmith to allow passengers to board a tramcar I engaged gears, and was preparing to accelerate when my machine gave a roar and stopped. On checking over I found everything in apparent good order, plenty of petrol, valves OK, gears properly home etc. Mystified I put the machine on the stand and was walking round to the near side to inspect the magneto when I felt a tug at my neck. The 'mystery' was solved. The day being cold I was wearing a very long scarf of fine wool, which I allow to hang almost to my knees. It had worked free from underneath me, and one end had been sucked through the long air pipe fitted to the Amac carburetter on the Sports Sunbeam, and was firmly wedged in the slides.

SF Seyfried.

[*Instances of this kind spoiling a non-stop run in a trial have been recorded.—Ed.]*

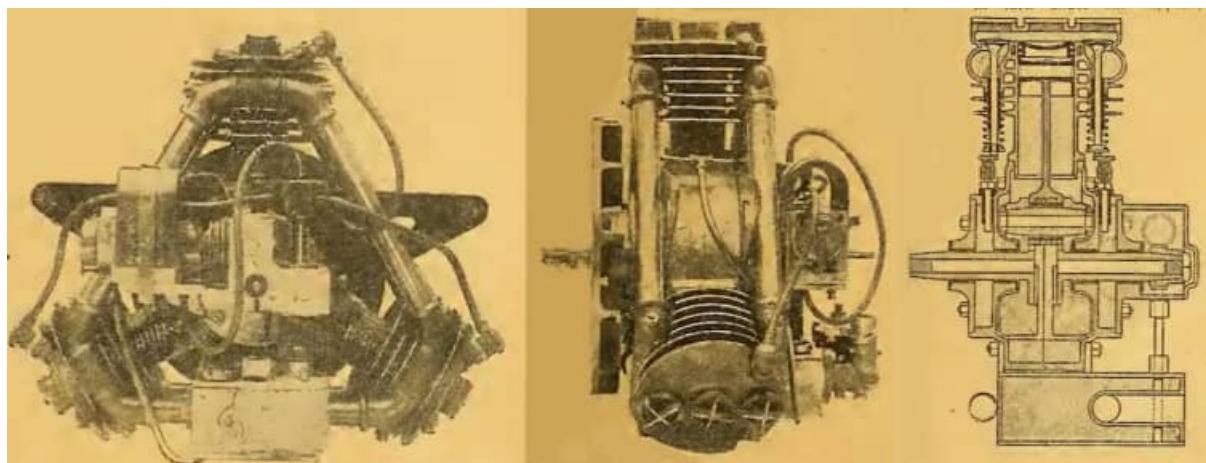
“SIR,—I HAVE BEEN MUCH IMPRESSED by the kind attention to details that you give in answering what would appear to be, in many cases, difficult questions, and, though I feel it to be rather a selfish demand on your valuable time and space, I am in hopes that you might be able to help me in a little undertaking of mine. As there seems to be a vast amount of sewage space literally crying out for a fuller use, I intend to endeavour to construct a subterrabrain waveium, and the following are the points on which I solicit your kind advice :

- (1) Would a 1914 Auto-Wheel develop sufficient power to propel it?
- (2) Would you suggest 14 or 16 blades to the propeller or paddles?
- (3) Should they be forged steel or cast iron, as I propose to make them of material 4x4in or 8x8in?
- (4) Would you suggest a pilot jet or just an ordinary rudder for purpose of navigation?
- (5) Is duroleum preferable to linoleum or paper saturated with petroleum the best material with which to construct the watertight compartments?
- (6) How often would you propose I should take up the bearings, and, as there seems considerable controversy on the subject, I want to ‘get well down to it’?
- (7) Which, in your opinion, is the best dual-purpose contrivance on the market to serve as diving-bell and state cabin?
- (8) When ordering my rubber boots, have I to state the size of my feet or the size of the boots?
- (9) What would happen if I reversed the figures?
- (10) How much would the driving licence cost to one who is habitually sparing with the soda on principle?
- (11) Would it be necessary, absolutely, to have a tank when there are such excellent feeding bottles to be procured at a much smaller cost?
- (12) Could you descant on the value of its imperishability with relation to the nebular hypothesis?
- (13) As I propose to construct it to bend in order to negotiate sharp corners, could you advise me as to the most suitable hinge on the market?
- (14) As I also propose to make the frame of 12x12in pitch pine, would you recommend adhesive tape or just ordinary tinned tacks for the joints—it is to be annealed in any case?

JA Cheek.

“UP TO THE PRESENT only one designer has tackled the problem of evolving a commercially possible radial for motor cycle use which, as a lightweight engine, was fully described in our pages. The same designer has now evolved a much more ambitious engine (still adhering to the three-cylinder layout), which, named the Cyclone, is being manufactured by SYS Engineering of Leeds...The crank case, of aluminium, is in two symmetrical halves, and the cast iron cylinders (63.5×101.6mm=963cc) are held down on studs in the usual way. The combustion heads are of the T-shaped variety, and the cast iron pistons have deeply concave tops. Cast integrally with the crank case sections are extensions which house the timing gears; these gears consist of a stationary internally toothed ring, a toothed wheel carrying four cams and an eccentric mounted on the crankshaft. In its oscillations the eccentric causes the wheel to roll round the ring, and the cams are brought in turn under the tappets; obviously as there are four cams on the one wheel, this must revolve, only once to eight revolutions of the engine crank-case shaft...A noticeable feature of the engine is the remarkably cool running, due both to the vaned flywheel and to the enormous cooling area of the seven ribs on the cylinder...On the test bench we observed an engine working, and noticed that its range of smooth running varied between

about 600 and well over 3,000rpm; while on the road in a light cycle car we found that the speed obtainable was extremely high."



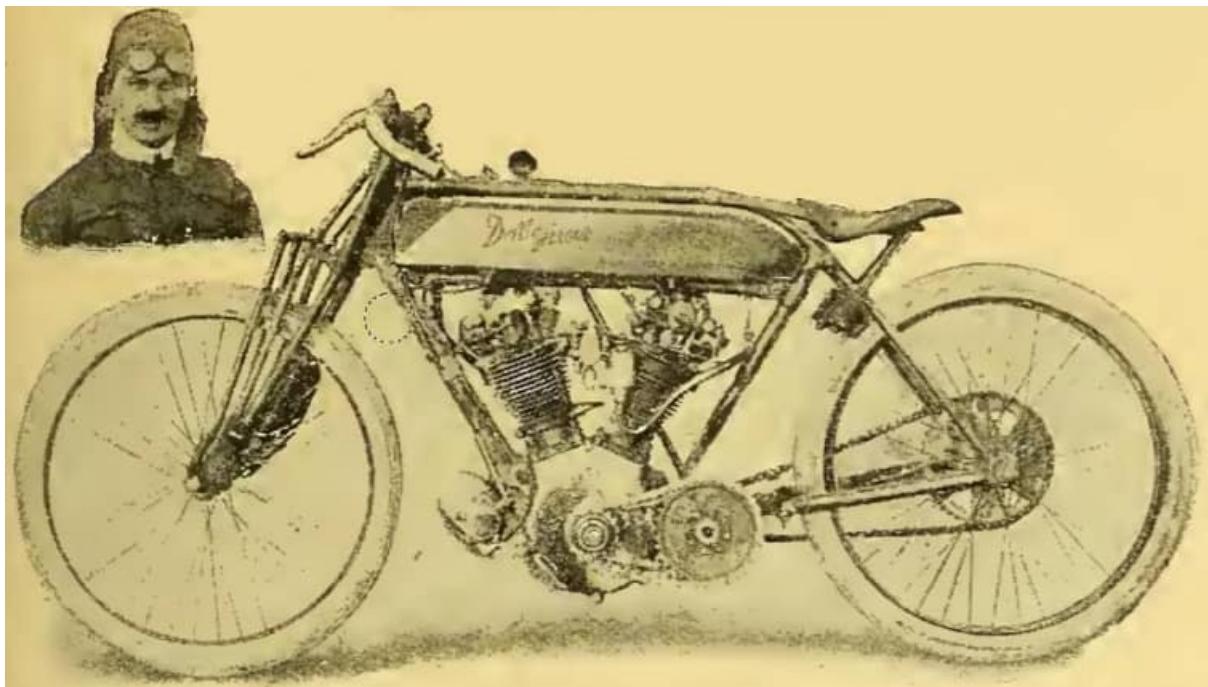
"The 7.5hp Cyclone engine is about 22in across the two lower cylinders and 20in high. The end view shows that the width is no greater than that of a single or twin."

"WORCESTER & DMCC: EARL BEAUCHAMP (patron of the club) took the chair at the recent annual dinner, being supported by Vicount Deerhurst, Mr TW Badgery (president) and Mrs Badgery, the Mayor of Worcester (Mr Samuel Southell), Ald A Carlton, and a representative assembly, including several well-known riders and motor cycle manufacturers."

"PRAISE FOR POLICE: WE HAVE had several letters from London-Exeter competitors appreciating the services of helpers and police, who, through the long, wet, and windy night directed the riders on their muddy way to Exeter."

"THE MARKETING OF MOTOR CYCLES in the United States of America is exercising the minds of sales and financial experts at the present time. The following statement appears in Automotive Industries as being from within the motor cycle industry: 'We strive to reach a field of dignified clean cut riders. To do so we educate them in terms, of exalted speed and dare-devil exploits of track burners. We bemoan the presence of public disfavour, and to remove it we increase the burden by eternally shouting speed, speed, and more speed.' In Great Britain the motor cycle has taken its place in all spheres of utility, and speed is not the chief factor."

"BOHEMIAN MCC: A MOTOR CYCLE CLUB has been formed in Southampton, and has been christened as above. It is the outcome of a party of enthusiasts who met occasionally for a jaunt in the New Forest; this was followed by an impromptu hillclimb, and within a fortnight the club was formed, and boasted 30 members. Taking into view the fact that the weather is hardly conducive at this time of year [January] to motoring, the start made is a very promising one. A novel feature is that there are no rules or regulations of any description. A most interesting programme has been arranged. Trade and professional riders are entirely excluded."



"By a curious coincidence, Frederico Della Ferrera (inset), on the above twin bearing his name, recently set up an Italian mean speed record for the flying kilometre in the 500cc class in exactly the same time as RN Judd's Brooklands record on a Norton. The two Italian times were 26min 2sec and 25min 6sec=25min 9sec; mean speed=86.37mph." (Uncovered chains driving the overhead cams had a habit of snapping, to the rider's discomfiture, but that didn't stop Frederico.)

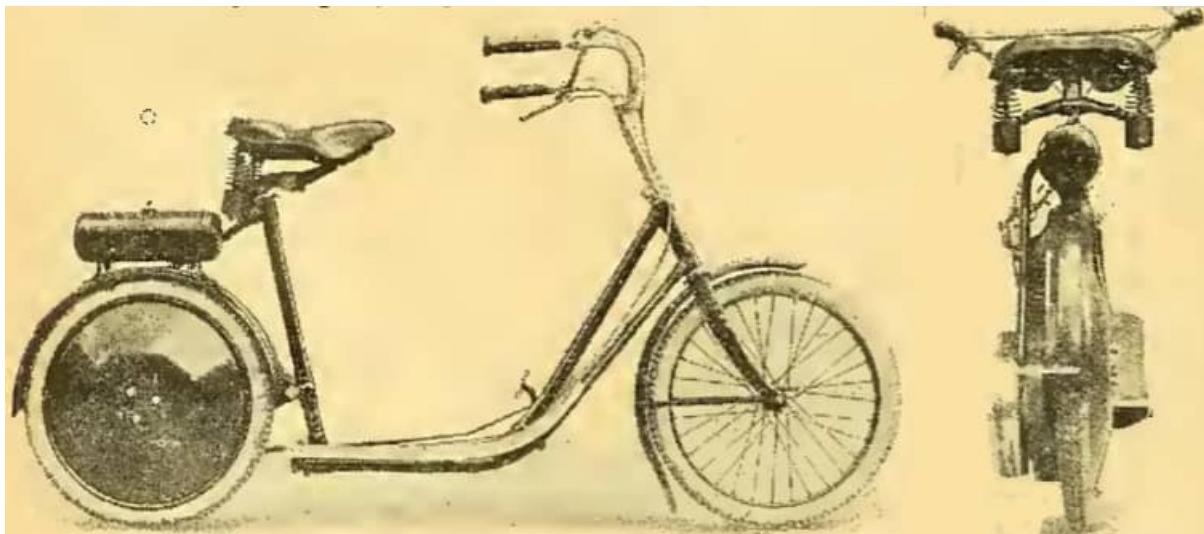
"ADVANCE IN DESIGN IS NOWHERE more impressively demonstrated than in such programmes as the Raleigh and AJS," Ixion remarked. "Both firms deliberately ignore the 500cc engine which has dominated our touring market for so many years. Each firm selects a biggish twin for sidecar work, and specialises in a light, high-efficiency 2½hp for the solo man. It is only a few years ago that the thought of unrestricted touring on a 2½hp machine seemed like a Christmas nightmare. To-day many hardy spirits attach sidecars to machines of even less than 2hp and manage to go almost anywhere with them."



This seems to be a team of Continental Raleigh riders. No details are to hand, which might be for the best.

IXION, IF ONE MIGHT BORROW from colonial baseball parlance, was in the habit of writing 'out of left field'. And sometimes he left the stadium altogether: "After road trouble one day (broken crankshaft, I think), I dived into a train in motion, and, to my joy espied a magazine left on the seat by some departed passenger. My hopes of mental refreshment during an irksome non-stop were rebuffed when I found the journal was *Blue Bells* (or words to that effect) and its principal contributor a certain 'Aunt Rosie', who advised fair readers what immediate action to apply if they spotted Bertie taking another maiden to the cinema. To-day I find myself compelled to play a similar role. The flapper who flaps on the bracket of a reader signing himself 'Big Four' is tired of her parrot perch, and yearns for a 'bus of her own. 'Big Four' promptly procured a sheaf of folders describing the best baby two-stroke. Not a bit of it. Miranda insists on a sports model of not less than 500cc. This time 'Big Four' has come to the right man. I have often been there. There are two modes of action, the *suaviter in modo* (otherwise, the velvet glove) and the *fortiter in re* (otherwise, the iron hand). The iron hand policy consists simply and solely of getting another flapper. 'Big Four' informs me in a lugubrious postscript that he has thought of this only to reject it (he has my sympathy, whether he is alluding to compromising letters, or to the fact that, like Little Willie in front of Verdun, he is too deeply engaged to withdraw). The velvet glove (cheer up, 'Big Four'!) consists of borrowing...well, this almost needs a paragraph to itself. Let 'Big Four' procure an extremely large 'bus—998cc, if possible. Let him carefully detune it so far as to make starting difficult. A wide plug gap. Air leaks at every joint in the induction pipe. No 3 spirit in the tank. Seccotine in the oil tank. Let him then select a day on which the temperature is low and the sky overcast. Let the road then be taken. 'Big Four' will start the lady's 'bus at the outset (a surreptitious injection of methyl ether is recommended). The lady must then be tempted to a scrap, and allowed to get the better of it. Within a mile or so 'Big Four' must allow himself to be left, whereupon he will lay bare his rear tube, unscrew and remove the tyre valve therefrom. This will give him a strafe-proof excuse to push home. The lady will be left wrestling with the unstartable 7-9hp, scaling some 3cwt. When she finally returns, she will be in an extremely chastened condition, and it will be found that, for the future, she prefers a Levis Popular to anything on wheels. Personally, I do not commend such mean-spirited handling of a

restive damsel. I believe in beginning as you mean to go on—in getting the girl properly to heel right at the outset. But as ‘Big Four’ is clearly only about 0.35 of a man, he may prefer the latter of my two alternatives.”



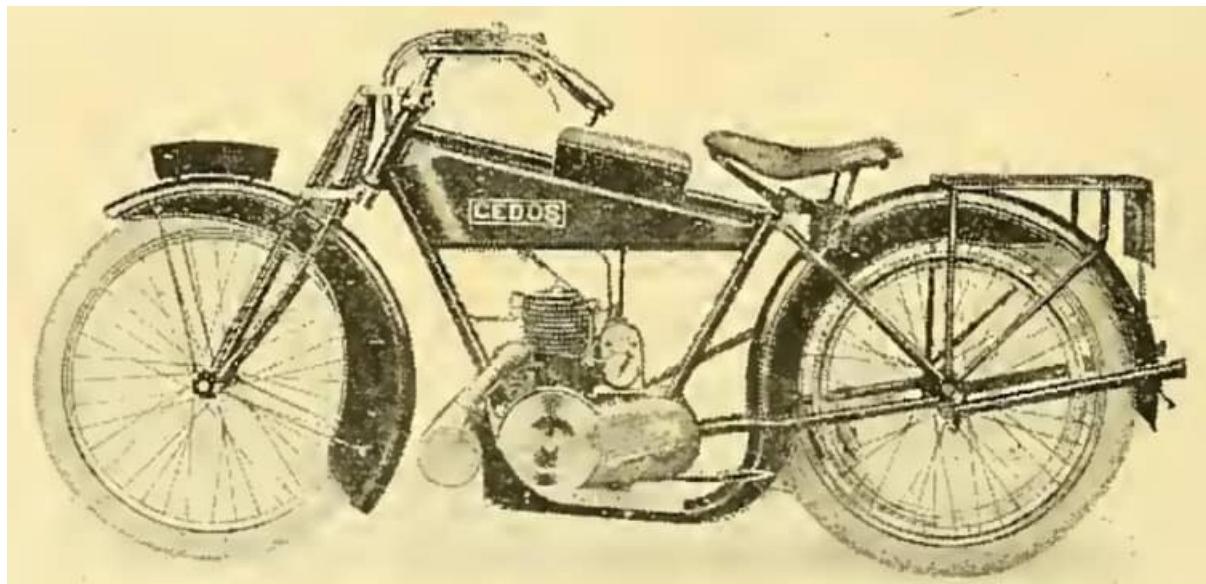
“Simplicity and cleanliness of design is the keynote of this American Briggs and Stratton scooter, which is fitted with a 2hp four-stroke engine. It is claimed that 100mpg can be obtained with the machine which, fully equipped, weighs but 110lb.”



“Enthusiastic club members: A group of lady motor cyclists (members of the Manchester MCC) who are not one whit less keen on competing in club trials than their brothers. Reading from left to right. Miss Storer (Levis), Miss M Cowley (Dot), Miss E Cowley (AJS), Miss C Cowley (Sunbeam), and Miss D Cowley on her scooter.”



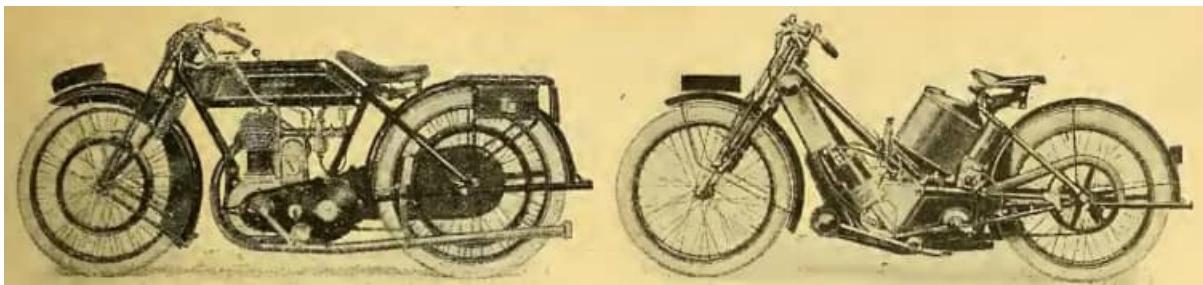
"THE YEAR 1921 WAS NOT a pleasant financial one for motor cyclists. We bought dear, and we sold—if, indeed, we were able to sell at all—quite abominably cheap. Consequently, like all wise men, I limited my purchases as far as possible, and depended, as far as possible, for new experiences on Press trials. The trade was producing plenty of new stuff, and was anxious for publicity; so my note-book reveals that I sampled the paces of some 50 different bicycles, sidecars, and cycle cars for periods of varying duration. I select for serious attention three machines which I either owned or used for over 2,000 miles apiece. All my hackwork was performed on a baby two-stroke, a 2½hp Cedos. There are so many machines of this type upon the road nowadays that I dare not proclaim my selection as the absolute best; but if there is a better machine in this class, I shall be very happy to make its acquaintance. Its reliability is absolute, no trouble of any sort or kind resulting from a full year of daily hard work, coupled with the most brutal neglect; an occasional



"A two-stroke that delighted our contributor—the 2½hp Cedos."

sooted plug or choked jet were the sole blots on its faithful service, and these trivial items must rank as inevitable, whatever one owns. Its power is quite up to the standard in this class, 45mph being obtainable on top gear, whilst main road hills create no anxiety on bottom. Its two chief features are its extraordinary comfort and cleanliness. Devoid of oil leaks, thanks to perfect

machining and fitting of all joints, it remains almost equally virgin of road stains, thanks to a light, substantial and admirably designed underscreen, good mudguards and efficient leg-shields. The under-shield on the Cedos is a forward extension of the rear mudguard. I frequently rode it in tennis flannels, in good tweeds, and even in black Sabbath garments—tests of which few motor cycles are worthy. Its comfort demands a more technical analysis than I have the knowledge to execute, and I have never owned a lightweight which I cared to hog over bad roads as I hogged this Cedos. The one and only criticism which I can pass upon it is that its carburetter was never worthy of it; the fuel consumption was too high—just under 60mpg—and the response to the control levers was never the same on two consecutive days. Next in order of gratitude I must rank a sports Sunbeam, specially geared rather low to compensate for my clumsy driving in freak trials, and to permit of sure climbing when a neglected engine dropped a little tune. If this machine had ever stalled me by the road I should have felt the same amazement as if the sun failed to rise one morning. It inspires the most supreme confidence, evincing a quite remarkable freedom from even the pettiest stoppages or sulkiness. Its middle gear would take a really clever rider anywhere, for the engine develops tremendous power, and, unlike some ‘revvers’, it can pull uncommonly hard at quite low engine speeds. A little bit inclined to be rough and



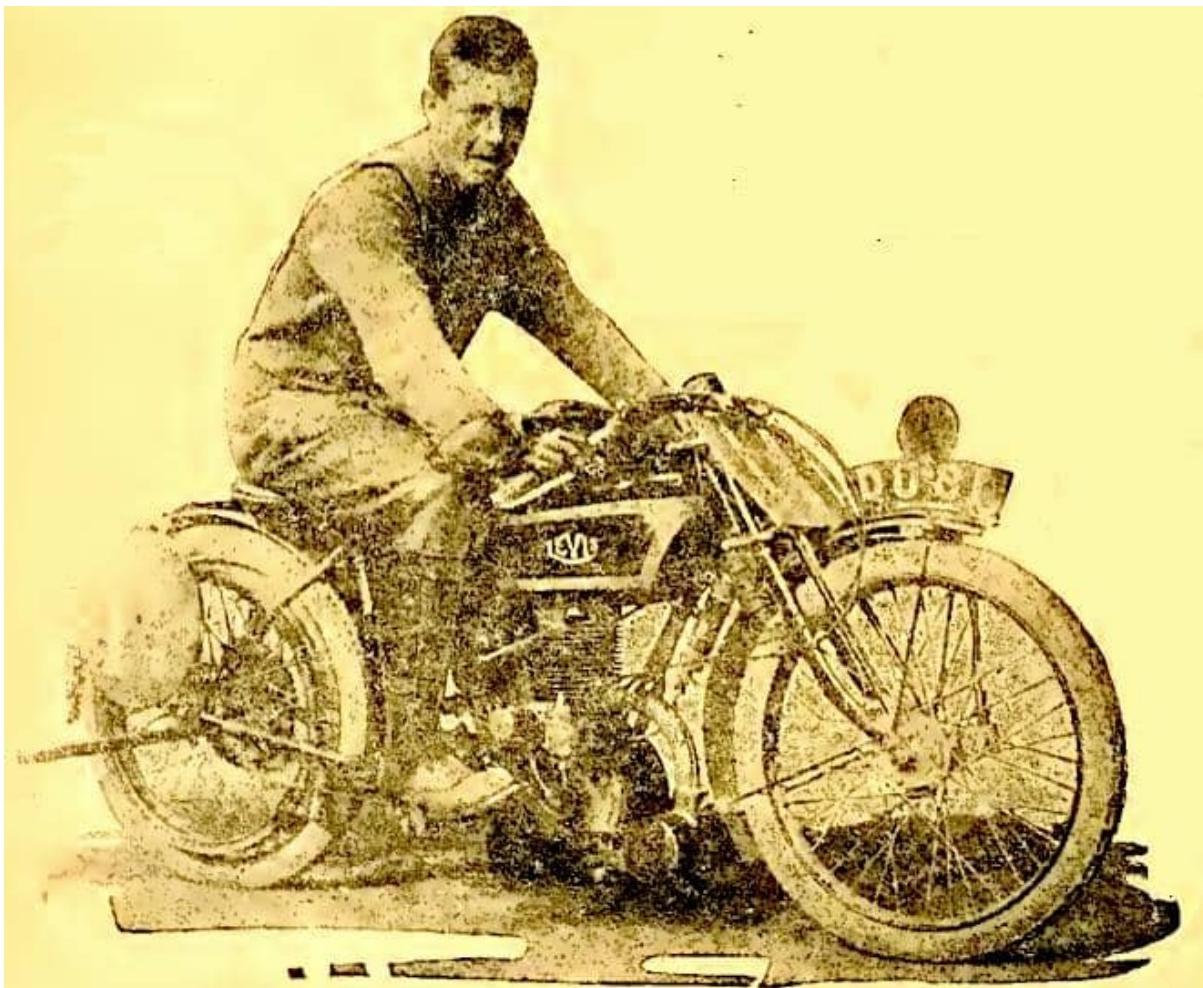
“3½hp Sports Sunbeam and the Scott Squirrel, both of which gave good service last year in the hands of ‘Ixion’.”

coarse at its most hurried gaits, I did not press it in the way of speed, but at high touring speeds it ran very smoothly. Its main fault was the location of the gear quadrant, which had a sharp corner just where one’s knee palpitated on bad going. My pleasantest speed experiences occurred on a Scott Squirrel, which is one of the most refined mile-a-minute ‘buses on the surface of the earth. Two factors contribute to the delight of its hurry. The first is the well-known Scott frame—not forgetting the fork. As all practised riders are aware, the glutinous qualities of the Scott chassis—whether in speed cornering or in mere tearaway dashes over moorland tracks or pot-holed tar—are the envy and the despair of nearly every rival designer. For comfort, steering, and safety, it is as nearly peerless as any competitive article can hope to be; and it is obviously useless to own a super-engine if the frame makes you nervous about opening the throttle except on those rare occasions when you find a perfect road in perfect condition. Secondly, the torque of a twin-cylinder two-stroke is so smooth that the Squirrel’s speed does not set you wondering whether a crumpled connecting rod is going to emerge sideways out of the crankcase at any moment; and the high gear ratio permits you to touch railway speeds without revving the engine up to its kicking point.”



"Motor cycle sledging in America. This magnificent sheet of ice, Lake Hopatcong, NJ, has been utilised to the fullest extent by motor cycle enthusiasts. It will be observed that the machines are fitted on to the sledges minus the front wheel, the rear wheel being shed with spikes to propel the vehicle along."

AS USUAL, *THE MOTOR CYCLE* published a comprehensive TT report; as usual you'll find it in the features section. But Geoff Davison, who (spoiler alert) won the Lightweight, went on to become editor of the *TT Special* and, in 1947, published *The Story of the TT*. So before reading the full preview and report, you might enjoy this straight-from-the-horse's-mouth report as an hors d'oeuvre. Over to you, Geoff: "The very fact that Howard Davies had won the 1921 Senior on a Junior mount gave rise once again to the old cry that the machines were getting too fast for the course and there was considerable agitation to reduce the Senior capacity to 350cc and the Junior to 250. The ACU and the imperturbable Mr Loughborough were not amused. Very wisely they left the Senior and Junior as they were and created a real race with a Trophy of its own for what had hitherto been known as the Lightweight class. It was in 1922, therefore, that the three TT races as we know them today—Senior, Junior and Lightweight—first got together. And in 1922 three new stars were born, all of whom were to make TT history in the years that followed. Between them they have won 15 TT races and made 28 fastest laps. I refer to those three brilliant riders, Wal Handley, Jim Simpson and Stanley Woods. Surely they were the greatest trio that the TT has ever seen and it is a coincidence that they should all have been 'new boys the same term'. Each was in a different race that year—Wal Handley (OK) in the Lightweight, Stanley Woods (Cotton) in the Junior and Jim Simpson (Scott) in the Senior. The Lightweight event, although a separate TT race for the first time, was



Geoff Davison (Levis), won the Lightweight in fine style and wrote all about it.

run concurrently with the Junior, the Lightweight riders all being despatched first. The race received an entry of 32—11 more than the previous year—with 13 different makes. From the entries it was obvious that it would be a battle between the four-strokes and two-strokes. The 1920 Lightweight class had been won by a two-stroke and the 1921 event by a four-stroke—the ‘know-all’s’ said the days of the two-strokes were ended. Four-strokes were represented mainly by seven New Imperials with JAP engines and by Coulson, Massey-Arran, OK, Rex-Acme and Sheffield-Henderson with Blackburne engines. The principal two-strokes were Levis, Sun Vitesse and Velocette, each with their own power units. I personally had learnt a lot from the 1921 event. This had shown me that acceleration was all-important and that one of the best ways of improving acceleration was to reduce weight. Bob Newey, the Levis designer, had promised me the best possible engine he could make and I myself set about reducing the weight of the machine. I had the run of the factory and, as sets of TT fittings came through, I selected the lightest of each. I dispensed with such ‘pansy’ fittings as sock-absorbers, footrest-rubbers and so one, and the net result was that my Levis, although the same to look at as the others, was nearly 40lb lighter than any of them! In addition I went in for personal weight reduction—straight slimming by cutting down beer, etc, and further weight reductions by use of light clothes. My riding kit—this was before leathers were compulsory—consisted of a crash helmet, tight-fitting cricket sweater, wash-leather gloves, drill breeches, stockings and dance pumps. I’m glad I didn’t fall off! It is interesting to note, too, that although I was by no means the lightest rider—in spite of my almost tropical attire—the combined weight of myself and my machine was over two stone less than that of any other rider and machine in the race. Actually

my Levis and I weighed about four stones less than Doug Prentice and his New Imperial and six stone less than Wal Handley and his OK. I thought that was good! The race from my point of view was uneventful. I took only one real risk, when I came over Ballaugh Bridge on the first lap in a group of four riders and on the wrong side of the road for the following right-hand bend. The somewhat hectic results of this adventure steadied me down and I took care not to do it again! Wal Handley (OK) and Doug Prentice and Bert Kershaw (New Imperials) were the favourites and Wal indeed, true to the fame which he was to win later, set off full



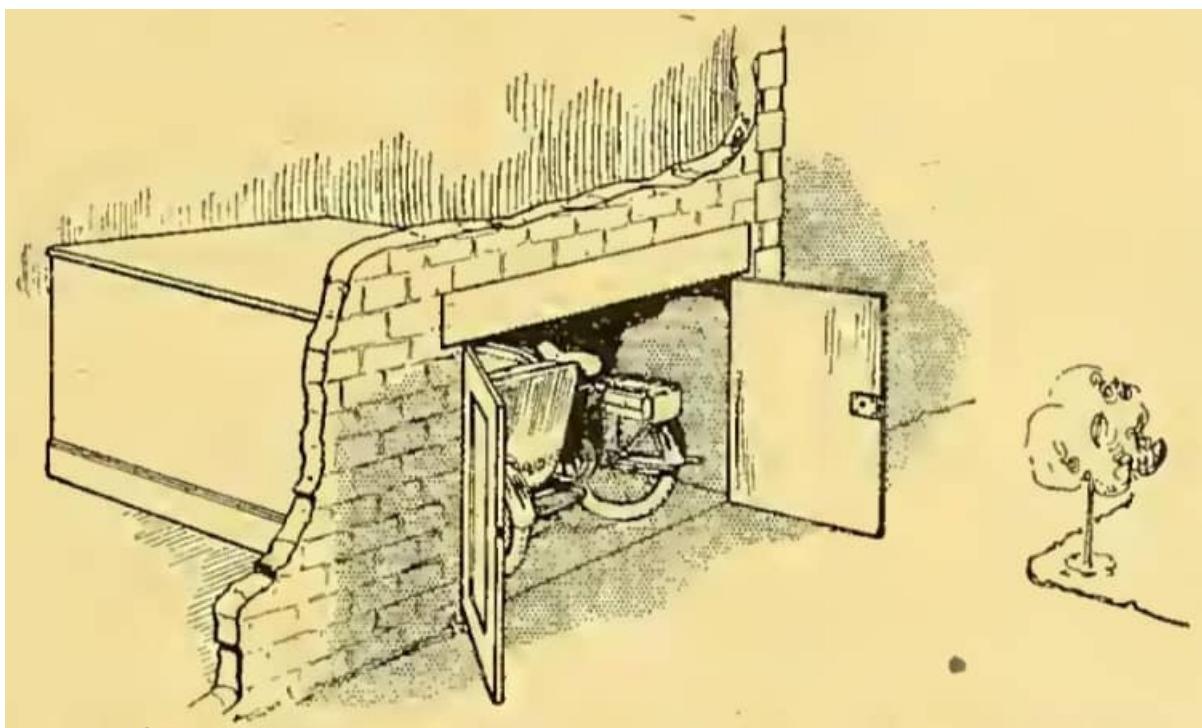
This is the OK

Supreme Lightweight team. Wal Handley (26), seeing the course for the first time, and without the benefit of a tour round, headed off in the reverse direction, being stopped at Governors Bridge. He set the fastest race lap before retiring, His team mates Neville Hall (4) and Charlie North finished 6th and 7th.

bore to make a record first lap in 44min 24sec (at 51.01mph), 11 seconds better than my own time. Bert Kershaw was third, just over a minute behind me. Then Wal broke down and from then onwards I had no-one to worry me. My Levis, due to the combination of its magnificent little engine and extremely low weight, had terrific acceleration and ran like a train. I led Bert Kershaw by two minutes on the second lap and by nearly four minutes on the third lap when I came into refill. Bert packed up in the fourth lap, letting Dan Young (Rex Acme) into second place, ten minutes behind me. I slowed down for the fifth and final lap, but Dan slowed down more and I won by just over 13 minutes with an absolutely no-trouble run. SJ Jones (Velocette) was third, a minute-and-a-quarter behind Young. Two-strokes were first and third and the clever fellows who had said they were finished began to think again. Actually my speed was 49.89mph and time 3hr 46min 56sec—32sec better than Jack Thomas who finished third in the Junior event. I was very pleased indeed to have won the Lightweight Trophy, but at the same time I could not help wishing that the regulations had been the same as for the previous year—in which case I should have clicked for third place in the Junior as well!" And here's an extra note, courtesy of the Blue 'Un: "The winning Levis purred in, its engine running with much the same, smooth power as at the start. It was only some twenty minutes slower over the course than the winning 350cc machine, and its time marks a huge advance on the lightweights of 1921. Judging by Davison's jaunty appearance, the Levis had given him a very comfortable ride; he seemed tolerably fresh and full of smiles. When it was clear that none of the later starters could beat the times now

registered, boy scouts hung laurel wreaths over those columns on the board in which Sheard's and Davison's times were posted."

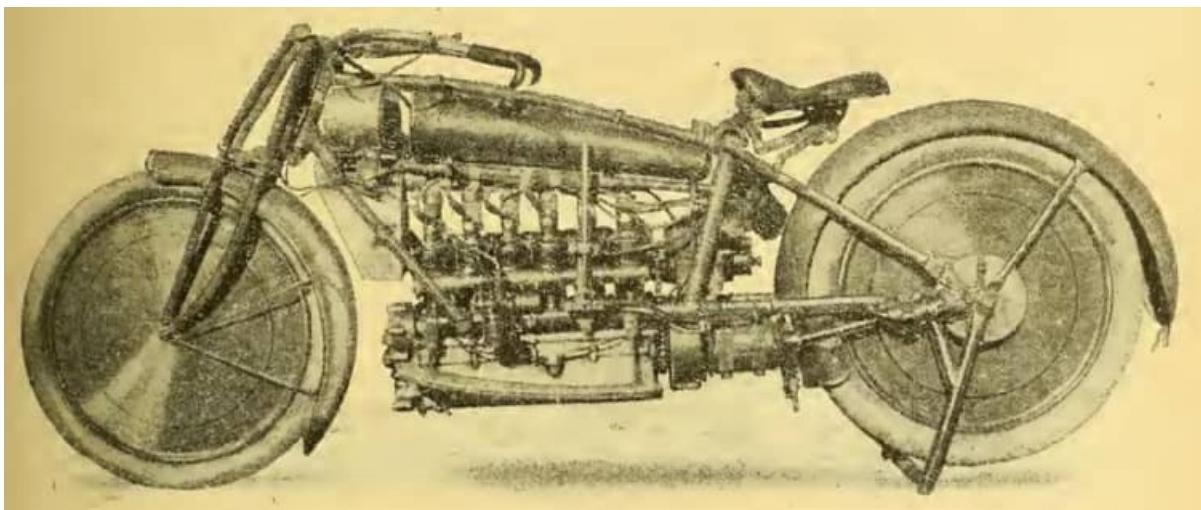
"ONE OF THE GREATEST DRAWBACKS to the passenger motor cycle is the difficulty of finding suitable housing for it. It is admitted that a machine which is kept a long distance from its owner's residence is not used so frequently as another which is 'on the premises'. Especially is this the case in our large cities, where all kinds of expedients have to be resorted to in order to find stabling for one's steed, at home or otherwise. The writer claims the following as a practical and inexpensive solution of this problem, suitable in many cases where an independent shed is out of the question. Briefly, the idea is to form a cupboard in the house itself, with access from the outside only. In the first place, a lintel should be prepared. This should be 6ft long, and may be either of wood, stone, or concrete. It should be the full thickness of the wall (which would probably be 9in), and if of wood it may be in two lengths, each 4½in wide. The brickwork should then be cut out to receive the lintel. This may, in most cases, be done without any props, providing the wall is fairly well built. It will be found most convenient to make the lintel about 7in deep, and this will occupy the place of two courses of bricks. After this is once fixed and wedged up tight, the brickwork below may safely be taken out, but care must be taken to leave 4½in under each end of the lintel...Inside the room the cupboard may be made to suit individual taste and the purpose to which it is proposed to be put...The finished height above the floor being only 4ft, the top can be made to serve as a table, writing desk, or any useful article of furniture...It will be found to be considerably cheaper than erecting an independent shed, but if the occupier is a tenant only, he should obtain permission from the owner before starting the work..."



"A suggestion for storing a sidecar at home where space forbids a garage at the side or back of the house."

"SIX-CYLINDER motor cycles are a rarity, although a few have been described in the columns of *The Motor Cycle*, the machine illustrated is interesting as being probably the most ambitious mount in the world of single trackers. The last six-cylinder motor cycle we described had a 'twin-3' radial engine, which, besides being remarkably light—under 200lb, in fact—ran with a

smoothness that could only be likened to an electric motor. Designed and built by a Spanish enthusiast, the machine under review has six cylinders in line, is water cooled, has three speeds and reverse, and is shaft driven. The bore and stroke are 50mm and 60mm respectively, the total capacity being 708cc. As will be seen from the illustrations, the valves are on each side of the cylinders, the cylinder heads are therefore of T formation. Though water-cooled, this fact is not immediately apparent, as the radiator is neatly located in the fore end of the tank. The thermo siphon system is used. It will be observed that the engine, gear box and the various smaller units are neatly disposed, and that the machine has not the appearance of being unduly heavy or cumbersome."



"Inlet valve side of the Spanish six-cylinder motor cycle. Observe the neat layout of the transmission."

"MOTOR CYCLISTS ARE DISGRACED by three masked riders who entered a branch of the Royal Bank of Scotland, held up the staff, and stole about £2,000. Hitherto the motor cycle has not been used extensively as an accessory of crime. The machine was a Sunbeam."



Though not by any means the first motor cycle wedding, it is rare to find all the guests being conveyed to church by motorcycle as well as the bride and bridegroom. The illustration depicts the sidecar outfits used at the wedding of Mr and Mrs F Foster, of Thornton Heath.

"IF 1921 HAS TAUGHT ME ANYTHING," Ixion remarked, "it is the unparalleled value of a variable jet. Nothing but the laziness of the public prevents these fittings being standardised by universal demand, for, having already two carburetter controls on the average motor cycle, John Citizen is dead against being bothered with a third. The result is that manufacturers experience a limited demand for the fitting, and as it must increase the cost of a carburetter quite appreciably the average carburetter maker prefers to push a fixed jet. But we are not all of us idle or untechnically minded. Speaking for myself, I find that for nine-tenths of my mileage I prefer a

small jet; it gives me all the speed and climb which I ordinarily want, plus real economy—possibly 110mpg on a 500cc four-stroke engine. For the remaining tenth of my mileage I care nothing about economy, but I yearn for lurid acceleration, intense speed, and terrific climb. This unrestrained tenth of my mileage being irregularly sandwiched into the more docile nine-tenths, changing a fixed jet occasionally does not fit my needs. I like to have jet control, so that a twitch of a lever converts my gentle tourist into a fire-eating road-burner. Those readers who have never tried a jet control should experiment with one in 1922."



"ALTHOUGH THE REPAIRS HAD NOT finally been completed, Brooklands track was partially re-opened on Wednesday of last week [1 February] mainly, we were told, on account of the keenness of the motor cycle element among its patrons to be 'at it' again. It was a glorious, summer-like morning, but the rain of the night before still lay in puddles along the inner edge of the track, guiltily indicating that nearly two months' work and the use of many tons of concrete had failed to produce the billiard table surface still popularly and erroneously associated with Brooklands. The roar of a healthy single drowning the buzz of two chain-driven Zenith-Bradshaws 'on test' suggested that Judd or O'Donovan might be early arrivals, but enquiry revealed the somewhat surprising information that the machine was a P&M. That the makers of such an essentially 'slogging', touring type of mount should turn their attention to speed work for the first time after so many years of successful reliability performances is, to say the least, significant. While we were there, P Cunningham on a stripped 3½hp model, lapped at nearly 58mph but previously lap speeds of very much over the mile-a-minute mark had been obtained. It is realised the track is a great teacher, and, even should the P&M remain (almost exclusively) unobtainable as a sports model, much of value may be learned. DR O'Donovan, the unassuming Norton wizard, and his most promising pupil, Judd, were also there—Brooklands would not be Brooklands without them—but not bent on any serious work, although the former gave us to understand that long-distance records would be in danger on the following week. The phrasing is ours, of course, not his...On the whole, the track may be classified as excellent, and to all appearances ready for very high speeds by either motor cycle or car. Without doubt some extraordinary figures will be attained...It is proposed to admit people to the test hill at Brooklands on Sunday afternoons and to allow those who desire to go round the track to do so at a reduced fee. There will also be a band playing."

"FATHER HAS TO PAY? Recently, at Kingston, a 14-year-old rider was summoned because his number-plate was obscured by the coat of his father, who was riding on the carrier. The boy was fined 10s, but the summons against the father for aiding and abetting was dismissed."



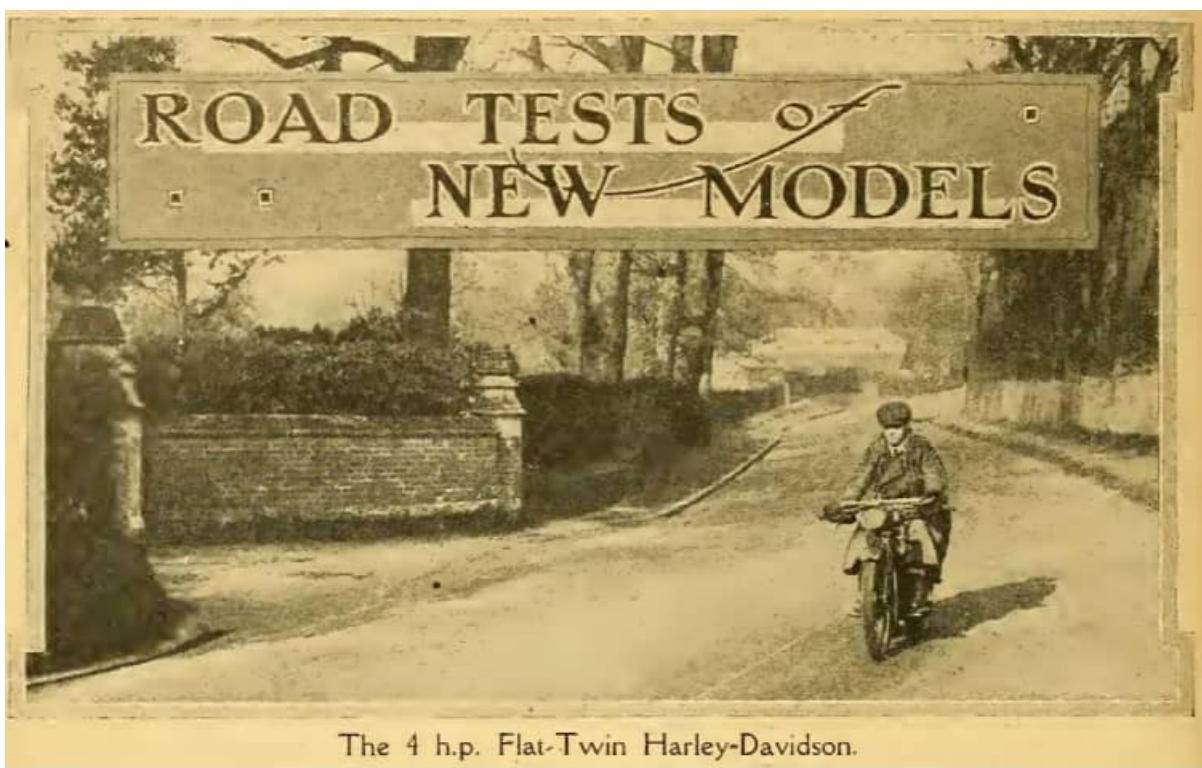
"A spectacular method—but not one we would advise readers to adopt—of demonstrating the stability a Scott motor cycle. EH Widdowson travelling at 30mph on Nottingham Embankment."



"Our picture shows one of several 'penny-farthings' entered in the comic cycle parade at the

Humber Sports Ground, Coventry. The idea of attaching a Wall Auto-Wheel to an ordinary (a penny farthing's proper name) caused great amusement among the spectators at today's gala day. Registered for road use in Kent, the Wall powered the odd combination around the sports field with ease."

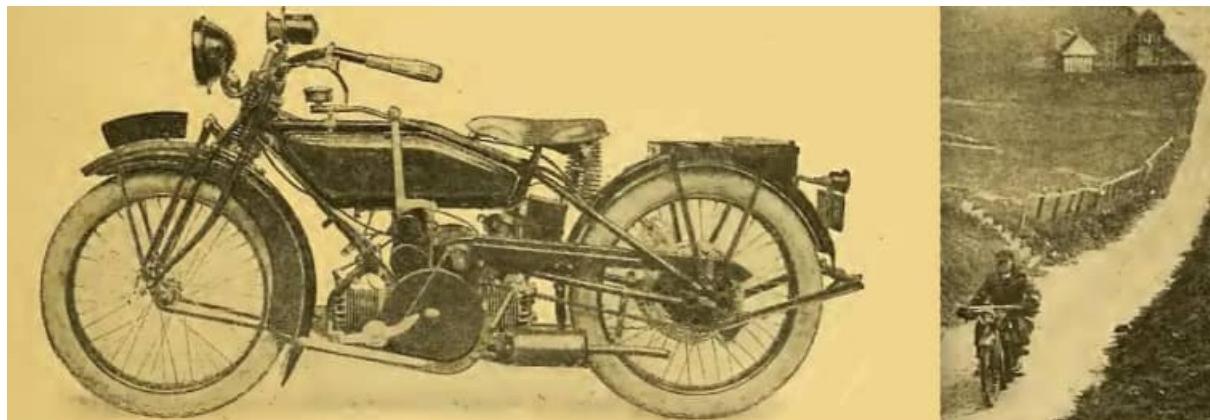
"IT MAY SURPRISE MANY OF OUR readers to learn that manufacturers of the best known American motor cycles consider long-distance events, such as the London-Edinburgh run, of greater importance from a publicity standpoint than the Tourist Trophy races...America is suffering a trade depression such as she has not experienced for many years, and, as is usual at such times, a close study is being made of the true value of different methods of propaganda. As a result of this, track racing is at a discount...while, as part of a publicity campaign, track racing has been proved to possess a purely local value. In other words, if and when phenomenal speeds are attained in America the rest of the motor cycle world (if the achievement obtains prominence) is unconcerned, or doubts its authenticity. On the other hand, the attainment of a success in a leading British reliability trial or race is accepted as authentic the world over because it is endorsed either by a club of unquestioned integrity and independence or by the governing body of the motor cycle movement in a country whose traditions have always upheld clean sport...In sober fact, Great Britain is recognised as the arena for motor cycle competitions, and the results are reflected, and therefore influence trade, throughout the world."



The 4 h.p. Flat-Twin Harley-Davidson.

"IN AMERICA THE 4HP FLAT-TWIN Harley-Davidson is regarded purely as a solo machine, and although in this country it is often fitted with a light sidecar, and is quite capable of such service, the factory which produces it no doubt regards the fact with something akin to mild surprise. It was with this in mind that we took over one of these machines for a test of its road capabilities and behaviour—particularly as compared with the British conception of an ideal solo mount. Since the ideals of America in this matter are obviously not the ideals of Coventry, Birmingham, or Wolverhampton, it is not surprising that the respective machines should differ considerably

both in general design and detail specification. This latter point was very forcibly impressed on us when we rode up to the Harley-Davidson depot in Newman Street on a typical Coventry-built sporting single, and a few minutes later rode away on the American flat twin. An automatic carburettor (Schebler) controlled by the right twist grip, a heel and toe pedal operated clutch, and a service brake (internal expanding) on the right-hand side of the machine instead of the left are the main points in which the Harley differed from our previous mount, but most readers will realise that these factors contained possibilities of half-a-dozen awkward moments in the same number of initial miles. Added to that is the fact that, almost immediately after starting up, we found ourselves negotiating Oxford Street traffic at—so it seemed!—its very worst. The Harley came through this severe test of controllability unscathed and with flying colours. Only in three prolonged traffic blocks was the rider compelled to put down a foot; the slow-running setting of the Schebler saw to it that: the engine was not once involuntarily stopped, and the beautiful balance, good acceleration on second gear, and efficient braking of the machine combined to transport us clear of London traffic with considerable rapidity and without as had been half-feared arousing the ire of taxi-driver, policeman, or ‘bus-driver. All things considered, we think that this performance speaks for itself and that any further comment on the controllability of the machine—which weighs about 280lb—would be superfluous. Further out on the Portsmouth road other characteristics began to make themselves apparent. The engine, as nearly as any reciprocating engine ever will be, is vibrationless at all speeds, and, in conjunction with 27×3½in and 26x3i. tyres on the rear and front wheels respectively, provides such a degree of smooth running and comfort that, in our opinion, it would be absurd to fit a spring frame. Acceleration is not startling, but a quick turn of the



“In its 1922 form the 4hp Harley-Davidson has a protected but not enclosed rear chain. The heel and toe clutch pedal may be clearly seen. (Right) On the 1-in-4 portion of Brooklands test hill.”

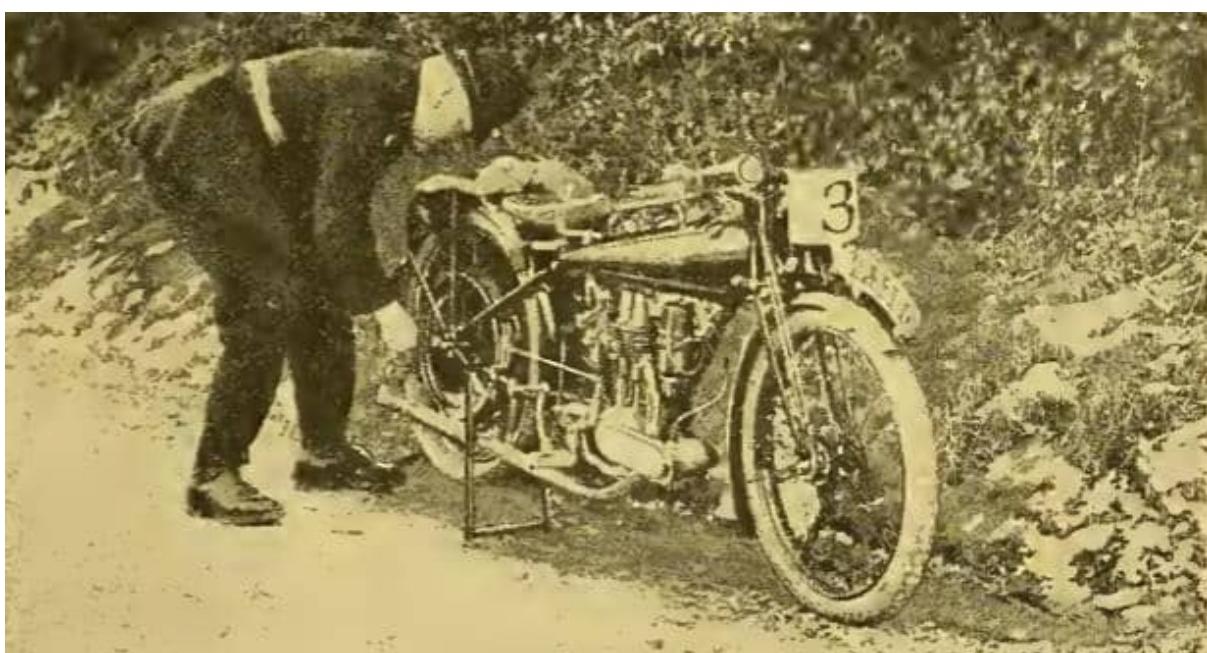
throttle grip as far open as it will go brings a perfect response from the engine without any of the ‘dead-spot’ misfiring much too common on flat twins with extensive intake manifolds. Exhaust heated inlet pipes are probably responsible for this. On the road the maximum speed—42mph—was disappointing, and a move was made to Brooklands to see if this could be improved upon without retuning; 45mph proved possible on the straight, but no more. If no speed indicator had been fitted we should certainly have estimated the speed at 50, but, while admitting the possibility of an error by the Corbin-Brown speedometer (perhaps caused by the gigantic rear tyre on this particular machine), we have learned not to place too much reliance on personal guesses at velocity. It would be unfair, too, to estimate the fuel consumption during the time the Harley was in our possession, but at touring speeds well above the legal limit 65mpg must be considered a fair average. An early 45 miles cost just the price of one gallon of fuel, but this was considerably improved before we returned the machine. There are no easily-reached

hills in Surrey or the adjoining counties that might reasonably be expected to extend the Harley, and therefore it was decided to be content with an ascent of the Brooklands test-hill.

Lubrication is by mechanical pump, and in consequence the rider may dismiss the subject from his mind; there is an auxiliary hand pump also. Gear-changing and kick-starting are more efficiently performed after some little experience. The gears are easily 'found', but the 'high' position of the lever is apt to be disturbed by the skirt of a heavy leather coat. The clutch is smooth in engagement, and the large pedal permits very gradual manipulation. Summarising, the 4hp Harley is extremely smooth running, very controllable, and very comfortable, but is not particularly speedy at anything approaching an economy setting of the carburetter. From all indications it should be just as steady on greasy tramlines as on dry tarmac, and has much to commend it to the hard rider who does not object to more weight than the British manufacturer thinks necessary for this type of motor cycle. Weight spells comfort.

"SIR,—I READ WITH SURPRISE your criticism of the 1922 4hp Harley-Davidson. I feel sure that there must have been something radically wrong with the machine in question. I have now ridden my 4hp Harley (1920) regularly for 15 months, and have covered over 10,000 miles on it. In your criticism you stated that the maximum road speed was 42mph. Without any tuning, other than carburetter adjustments, I attained a speed of 60mph by my speedometer, which I have compared with many others and found correct within 3mph. This speed was attained on the main road between Penrith and Appleby. I have never tried it out on the track. By speedometer, I have many times exceeded 50mph with an adult on the carrier, and occasionally with two on the carrier. I have also exceeded 40mph with three on the carrier. I think the above will testify that the 4hp Harley has plenty of power, and reasonable speed. As to petrol consumption: Last summer I rode down from Appleby to Newport (Salop), at an average speed of 30mph (running time). The total mileage was 185. When I started my tank was full, containing 2½ gallons of petrol. When I arrived I had exactly a quarter of a gallon left. This works out at 92.5mpg, which leaves very little to be desired. As regards the other points in your criticism, I agree with and heartily endorse them. I think a large majority of the 4hp Harley riders will agree with me.

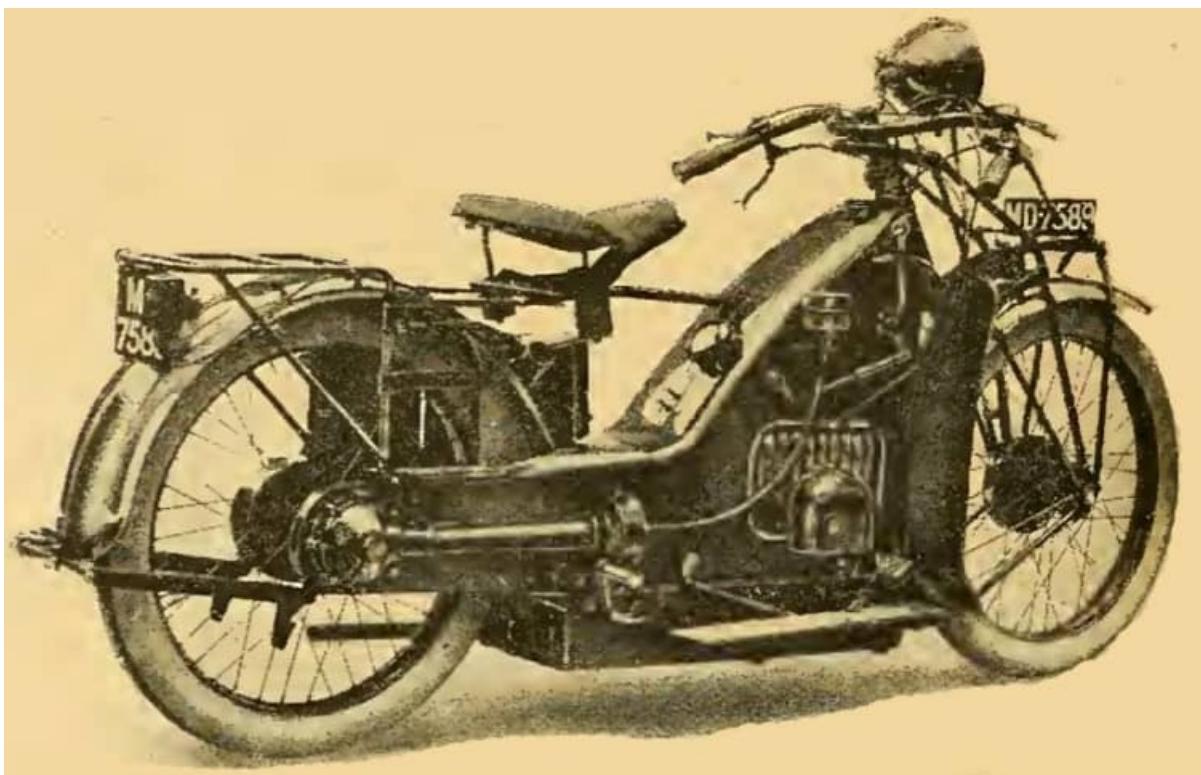
Four-Up-Solo, Newport, Salop."



"Police sportsmanship: Years ago there was decided antagonism between motor cyclists and

certain members of the police forces throughout the country. A happier feeling now prevails, however, as will be judged by the illustration depicting a police officer withdrawing a three-inch nail from the tyre of a competitor's machine in the Coventry and Warwickshire MC trial last Saturday."

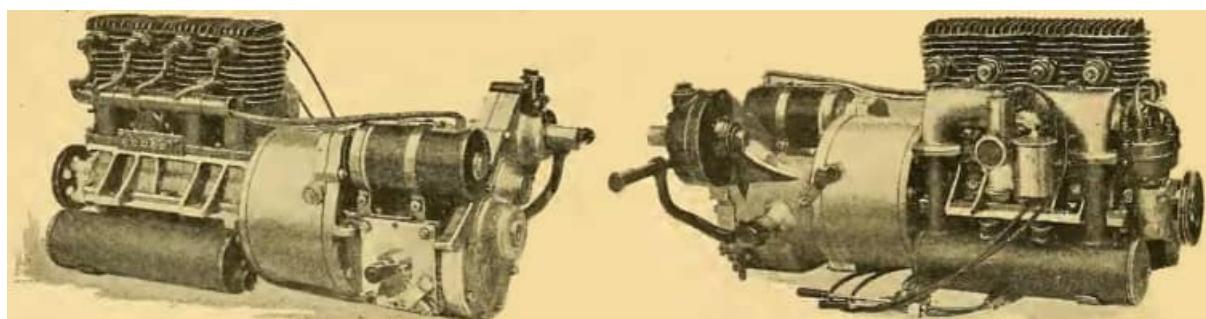
"THE MACHINE DESCRIBED BELOW is the 'ideal' of Professor Low, who has been long connected with the motor cycle movement, and has made a careful study of motor cycle design; in fact, his association with the Auto Cycle Union as a judge has placed him in close relationship with all types of machines. His production is of thoroughly sound design and bristles with novel points...A certain section of potential purchasers of motor cycles require a mount which can be ridden in white flannel trousers to the tennis club, or in dress clothes, as well as in everyday garb. Many riders have also expressed a wish for a machine with shaft drive, an even torque, and one which could be hosed after a muddy ride. Such a machine is the Low four-cylinder two-stroke...The charm of the Low machine is that engine and transmission are entirely enclosed, while the general lines are graceful, though unconventional...Pressed steel is used for the frame construction, and serves to



"Offside of the Low four-cylinder machine, showing the enclosed transmission and the speedometer drive from the propeller-shaft...the clutch is controlled by the left Bowden lever and the front brake by the right Bowden lever. The left-hand pedal controls the back brake and the right-hand one the clutch, for which there is a dual control. The change speed lever will be noticed adjacent to the top tube."

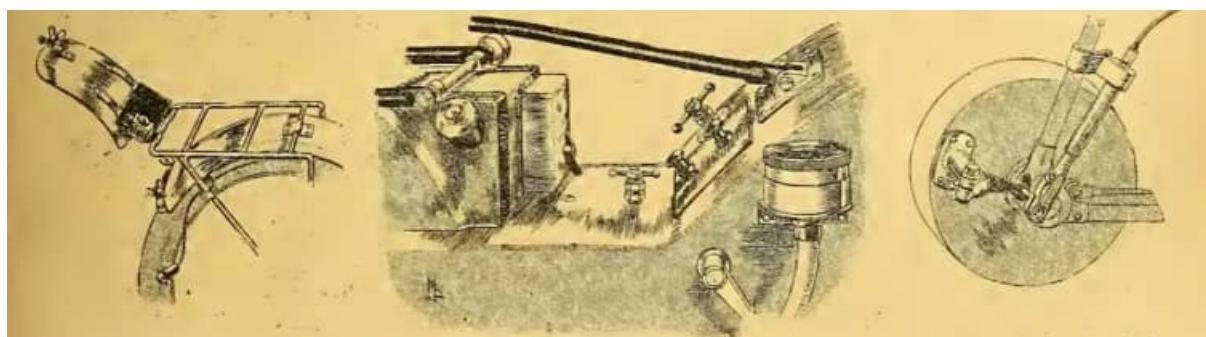
enclose engine and gear, box units and the 2½gal petrol tank, tubes being employed only in the forks and carrier. No attempt has been made to embody rear spring suspension in the design, but the saddle is mounted on duplex laminated springs and a linked stay, while the cantilever-type forks are of light, but strong construction, employing a laminated spring. For the first time in the history of the motor cycle movement four-cylinder two-stroke engine forms the power unit of a single track vehicle. Though of the three-port variety, the engine design shows originality;

the cylinders form a ribbed monobloc casting, but with air passages between each...The inlet and exhaust manifolds are one casting, so that the incoming charge is adequately heated by the exhaust...Engine and three-speed gear box form a complete unit...As the final drive is by shaft and bevel, the drive to the shaft universal joint is through a train of gear wheels...The propeller-shaft is enclosed by a telescopic sleeve, a portion of which can be slid backwards to allow disconnection with the drive in the event of the rear wheel requiring to be withdrawn...front and rear wheels are interchangeable, while if a sidecar should be fitted the wheel of this will also be interchangeable. Though only 492cc, the machine is designed to take a sidecar, and cup-shaped threaded holes are provided in the frame construction into which a ball joint may be inserted...A Rotax dynamo is mounted over the gear box, and is driven by a train of gear wheels. The dynamo supplies current for ignition as well as for



"Four-cylinder two-stroke power unit of the Low motor cycle. Note the high tension distributor, the Rotax dynamo mounted on the gear box, the clutch casing forward of it, the drive to the propeller-shaft and the kick-starter. It will be seen that a fan pulley is shown...but it has been found that a fan is unnecessary."

lighting: a coil and accumulator being used in conjunction with a distributor mounted at the forward end of the crankshaft...For the purpose of carrying out ordinary adjustments to plugs or distributor, it is only necessary to open the doors in the frame...The weight of the machine is 2901b; 26×2½in tyres are fitted on wheels fitted with internal expanding brakes which come away intact with the wheel; front and rear brakes are interchangeable...Despite its rough state, the experimental machine ran extremely well. There was no silencer fitted at the time of our brief test, but the exhaust made a delightful hum reminiscent of a miniature aeroplane, while the acceleration was all that could be desired, and the engine ran with the smoothness of an eight-cylinder, there being four impulses per revolution...The saddle suspension and forks were most comfortable, but it is admitted that the rake of the steering was a quarter of an inch out, while the design of the handle-bars was not ideal. Still, these are but trivial points, and for an experimental model its behaviour was quite remarkable."



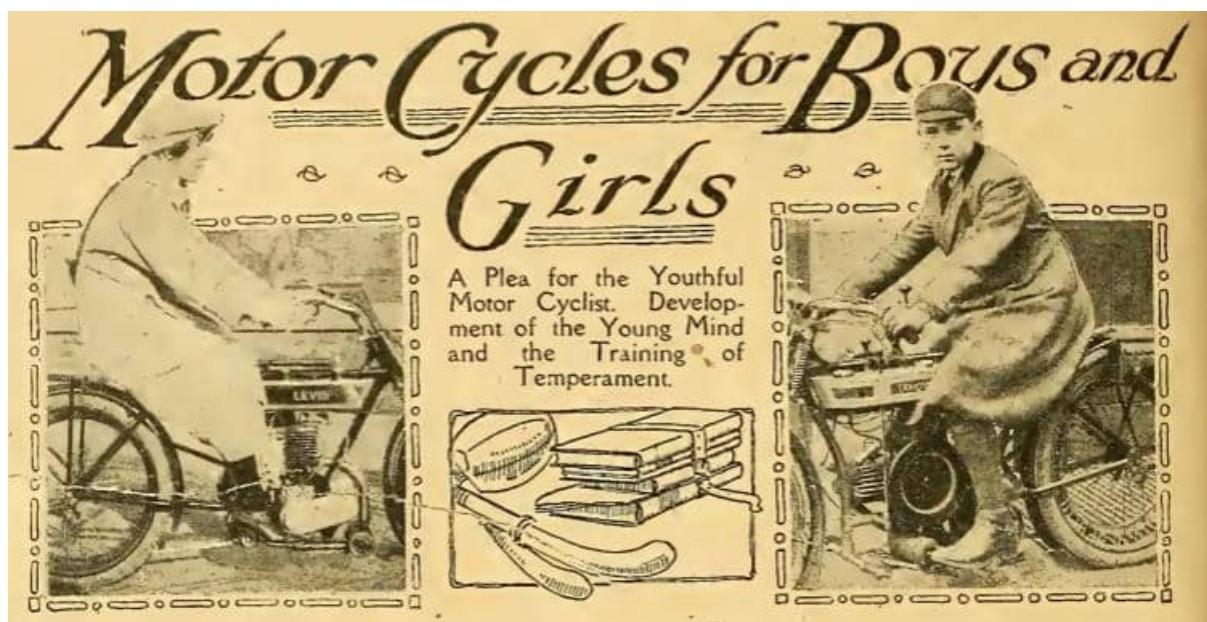
"To facilitate the removal of the rear wheel, and allow of access to the rear tyre, the lower section of the mudguard is hinged on the luggage carrier. Lubrication economy is a feature of

the Low motor cycle. On the left is the half-gallon oil-tank, which holds sufficient lubricant for 600 miles. Of the two lubricator controls the upper one regulates the main oil supply and the lower one the oil pipe to the inlet manifold. With interchangeable wheels quick detachability of brake control is a necessity. A spring clip holds the lever in yoke end."

"SENT AT MIDDAY FROM PARIS in a Goliath aeroplane, a Gnome and Rhone motor cycle was delivered to the Brussels agent within six hours, including passing through the Customs. It is stated that the cost of transport was less than by express train."

"SPEED-MEN WILL BE INTERESTED to learn that a number of the actual machines entered by the BSA Company in the TT last year are now available, completely rebuilt and renovated, at an extremely moderate figure."

"THE FRENCH NATIONAL FUEL, the ingredients of which have hitherto been kept secret, consists of high-grade petrol, alcohol, cyclo-hexanol, and phenol. Naturally, petrol forms the greater part of the mixture."



"THE LAW STATES QUITE DEFINITELY that a licence to drive a motor-propelled bicycle may be issued to any individual who shall have attained the age of 14 years. Yet the same law does not differentiate between this young person and toothless, tottering old age, nor between the degenerate, the mentally unsound, the blind, the deaf, and the hopeless cripple. It may, therefore, be quite reasonably assumed that the law—itself termed a 'hass'—has very carefully refrained from admitting that because a licence to drive a motor bicycle is issuable at the age of 14, therefore, as a natural sequence, as it were, the individual of 14, male or female, is fitted so to drive, and is an absolutely responsible person. How many boys of 14 are actually capable of handling a machine at the legal age for licensing? I submit that quite a considerable number are capable many more, in fact, than are generally credited. And, further, I venture to state that the ownership of a motor cycle—preferably of the small lightweight type—provides at once, a healthy stimulus to the boy or girl of 14, whereby much that is desirable in youth—care, discrimination, thoughtfulness, a keen eye for detail, the faculty of observation, good temper, judgment, and pluck—is encouraged and developed in a manner far more natural than under many other conditions...Of course there is dust, of course there is noise and grease, but there is sun and wind and rain; and it all calls for the exercise of those qualities of endurance which we

value so highly, while the need to care for one's own personal safety and the absolutely necessary consideration for the safety of other people, is bound to eradicate any trait of recklessness which may have existed in the first days of ownership—when, proud of the capacity to manage a machine, the youngster opens up his throttle and lets her 'rip' along the high road...It must sharpen the wits of any youngster and inflame his natural curiosity when accosted with a modern power unit, while the desire to comprehend everything connected with it will make even a dull and somewhat stupid fellow liven up...It is a foregone conclusion that any youngster not attracted by machinery is sick, or dull, or unusually constructed...I am positive that, with due safeguarding, the possession of such a machine can only result in good."

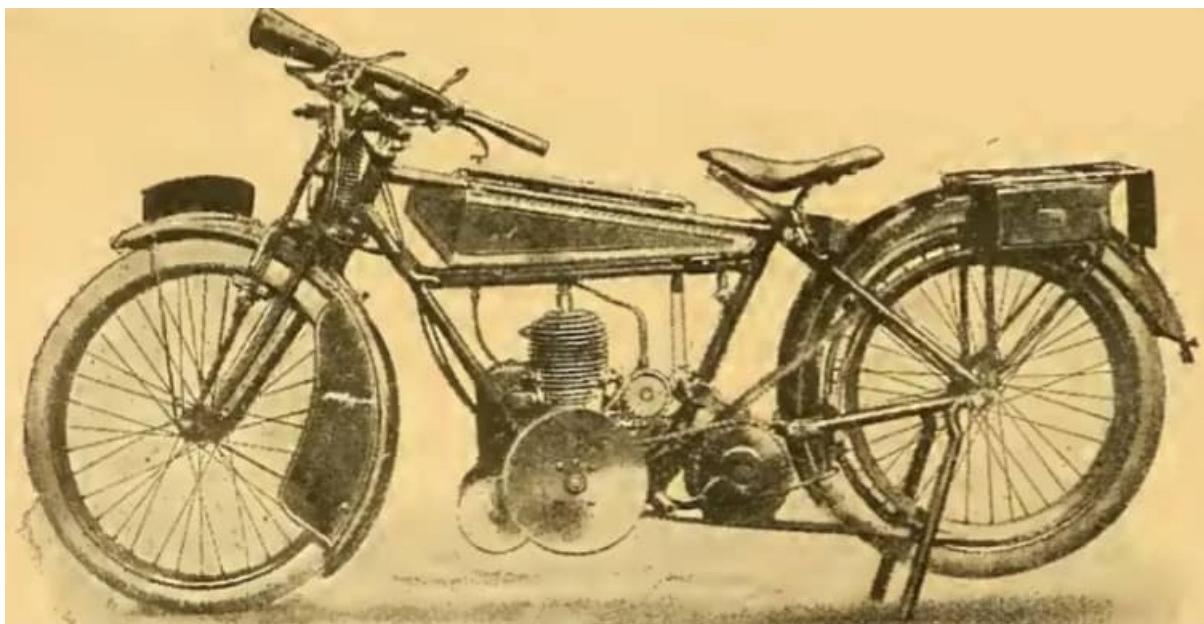
Lt Col FS Brereton CBE [chairman of the ACU].

"SIR,—AS A STEADY, MIDDLE-AGED 'potterer', I have read with alarm the article, 'Motor Cycles for Boys and Girls', by Lt-Col Brereton. Surely we motor cyclists have enough to bear from road-hogs, chars-a-bancs, etc, without our terrors being added to. I think I can claim a greater knowledge of boys than Lt-Col Brereton, as in the course of my duties I come into personal contact with the boys of 500 schools every year, and my experience teaches me that the average boy of 14-16 years of age is a reckless, irresponsible dare-devil, entirely devoid of nerves. I will not accuse him of being selfish, but he is certainly thoughtless (what boy isn't?). It was this very recklessness, dare-devilry, call it what you will, in our young pilots (Heaven bless them!) which gained us our supremacy in the air during the war, but we don't want it illustrated on our roads. The law which grants licences to boys of 14 must certainly be a 'hass'. The motor cyclist who is shortsighted, deaf or crippled knows his limits, and the rest of us have little to fear from him, but the average boy of 14 wants speed, and knows no limit. Fortunately, we see very few boy motor cyclists on the road, which makes me think that parents are evidently of the same opinion as

XH 3296, Canterbury."

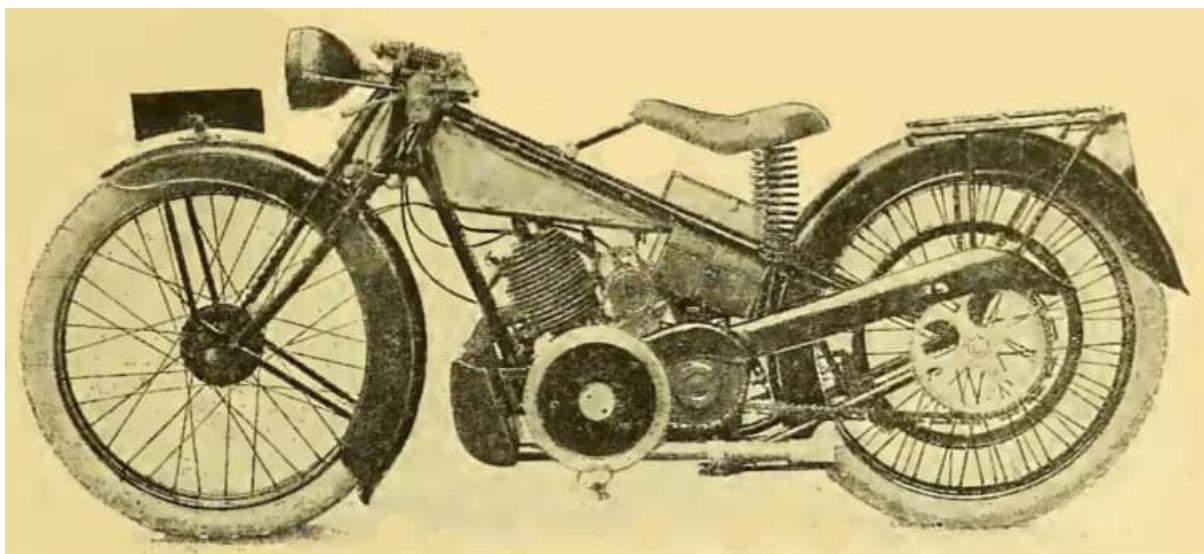
"A SPECIAL PRIZE IS TO BE given to the driver of the first sidecar outfit to climb the new Kent hill 'find' that figures in the Woolwich Club's opening invitation run on March 12th. The discovery, first brought to light in the Correspondence columns of The Motor Cycle, is arousing great interest, and the officials are receiving many inquiries."

"NO GREATER CONTRAST IS IMAGINABLE than last Saturday's trial of the Essex MC and the previous week-end's event of the Coventry club; the former was the more sensible, but the latter was more enjoyable."



"White & Poppe four-stroke engines were in the front rank in the early days. The name now re-enters the motor cycle field, gracing a two-stroke engine which is giving remarkable results, almost unbelievable rates of revolution and a degree of silence not usually associated with units of its type. The machine in which it is shown is obviously merely a testing assembly."

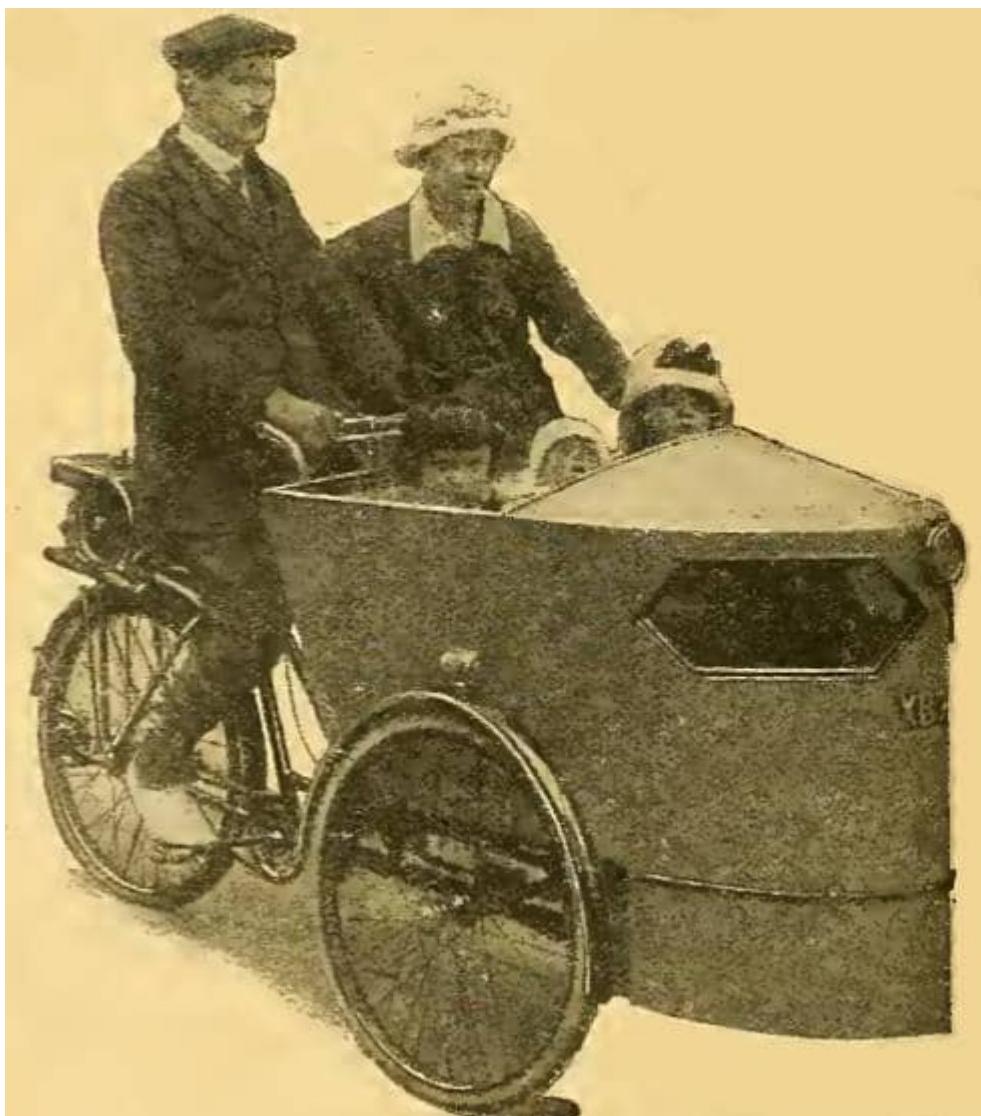
"**QUITE ONE OF THE MOST INTERESTING** machines which we have been able to examine and handle is now undergoing preliminary road tests in an experimental form. Originated by Mr E Poppe, it will be produced in conjunction, with Mr G Packman, of Rochester, and it is hoped that it will be ready for the market in the autumn of the present year. Though in its present form the machine differs somewhat from the production model, the essentials are embodied and are undergoing prolonged tests. A White and Poppe two-stroke engine of 250cc is fitted, and the gear is a Sturmey-Archer lightweight three-speed, with clutch and kick-starter. It is intended that these two parts shall be embodied in a single unit, the Sturmey-Archer gear parts being fitted in an extension of the crankcase. The engine is to be increased in bore so as to bring it within the 350cc class, and a mechanical pump will supply oil from a sump between the crank and gear box partitions. By a clever piece of design (not shown in our illustrations) the whole engine and its accessories can be closed in by side shields, which are neatly fastened to the tank. These side pieces splay outwards at the front, and they are curved round to form leg shields, which help to deflect air over the engine and keep the rider free from oil as well as mud, yet they can be detached in a few seconds...A short run on the road convinced us that the machine is thoroughly comfortable, and steers perfectly at speeds over 10mph; at slower speeds an improvement might be made, and the matter is receiving attention at the moment."



"An experimental two-stroke to be marketed later in the year by Poppe and Packman. Good design, neat appearance and excellent detail work are important features."

"WEEK-ENDING AT COUNTRY HOUSES has made me [Ixion, inevitably] realise what a number of people, resident at fair distances from stations, churches, post-offices, and the like, are looking to the motor cycle as a possible tender to their cars. I can recall at this moment a score of households which maintain something like a 20hp Austin as their main transport and have since the war invested in some sort of a two-wheeler as a dinghy to the yacht. Madam wants to go to church, or to the station, or to post, when Papa is away with the car there may be two or three dancing and tennis-playing daughters; there is a governess; occasionally the more youthful sort of son, say a Winchester boy on his holidays, requires short distance solo transport. Of course, young Clarence knows all there is to know about motor bikes, as his arguments with the governess at the breakfast table testify. Such households form curious backwaters of the motor cycle world. They muddle and struggle along quite on their own, innocent of club matters, technical matters, and the like, regarding motor cycles much as you arid I, dear reader, regard a gas meter—as inexplicable boxes of mechanism, which are necessary evils of life under certain conditions. In 1920 and 1921 such families generally bought a scooter. I have yet to encounter one solitary case in which they loved it. It was not very strong on hills. It was quite easily upset. Frequent tumbles seem to have been the rule with it, especially on the part of the fair sex; and its history in their hands makes me rejoice that, before its failings were exposed, this journal gave it a very guarded and critical welcome. Just at present the Ner-a-car is what such families seem to fancy, though the small two-stroke is by no means unknown amongst them."

"AT A RECENT MEETING OF the Hereford City Council there was a discussion as to the advisability of limiting speed in the city to 10mph. The Mayor of Hereford wisely objected to the imposition of an artificial speed limit, saying that his experience in the police courts had shown him that it was best to deal with 'road hogs' by prosecuting them for dangerous driving, his opinion being that any speed limit was an encouragement to drive at that speed irrespective of risk to others."

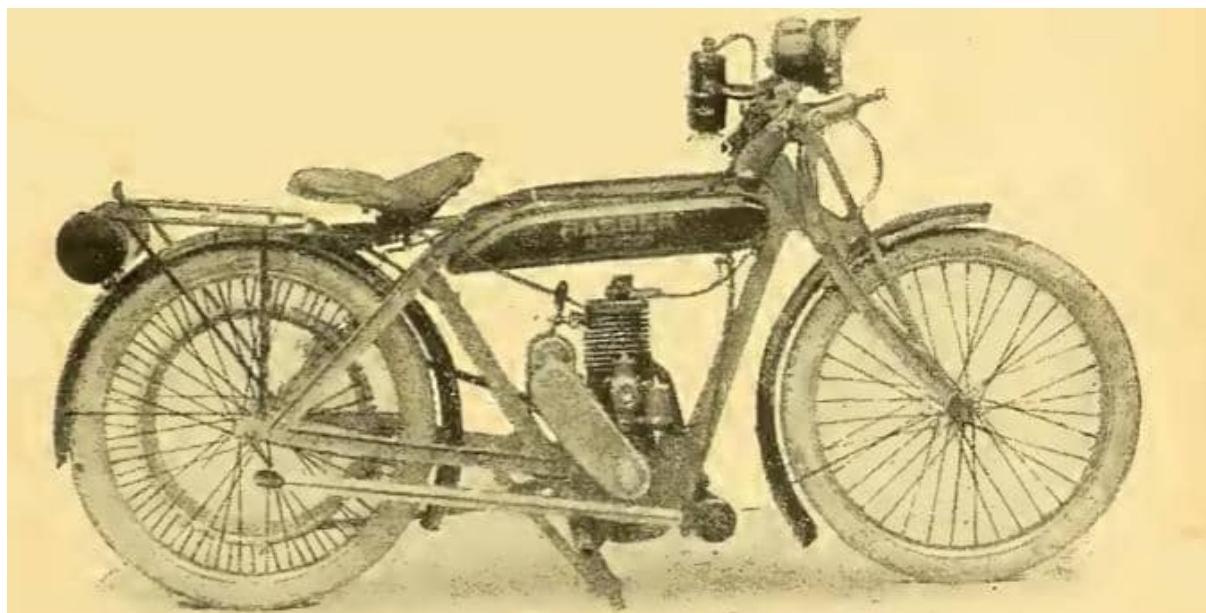


"That 'the proof

of the pudding is in the eating' is exemplified by the performance of this frail-looking and apparently overloaded hybrid, descended from a tradesman's pedal tricycle, which has been propelled 8,000 no-trouble miles by a 1½hp Simplex motor attachment. It is submitted by its designer and owner, Mr HAD Joseph, as a solution of the 'Economical Transport for Two' (or more) problem."

"MR ALAN W DAY, THE HONORARY SECRETARY of the North London MCC, one of the most enterprising Southern clubs, sends us the following letter for publication: 'With reference to the annual rally on Good Friday at Richmond (Yorks), this club and several other similar organisations in the South are awaiting with interest the publication of the full regulations governing this year's event. In 1921 a band of enthusiasts from the North London MCC made the long journey to the Northern market town, leaving the Metropolis on Thursday evening after the usual day's toil, snatching refreshments and a few hours' sleep at Bawtry, and arriving at Richmond with none too much time to spare before the count at 12.45pm. Your interested readers will recollect that an attempt was made (and duly frustrated) to disqualify the Londoners on the grounds that they had not travelled the whole distance on the day of the rally—a feat well-nigh impracticable—although there was no clause in the rules to that effect. If the energetic organisers intend to include such an irksome restriction (from the point of view of Southern clubs) in this year's regulations, it is suggested that its seeming harshness be

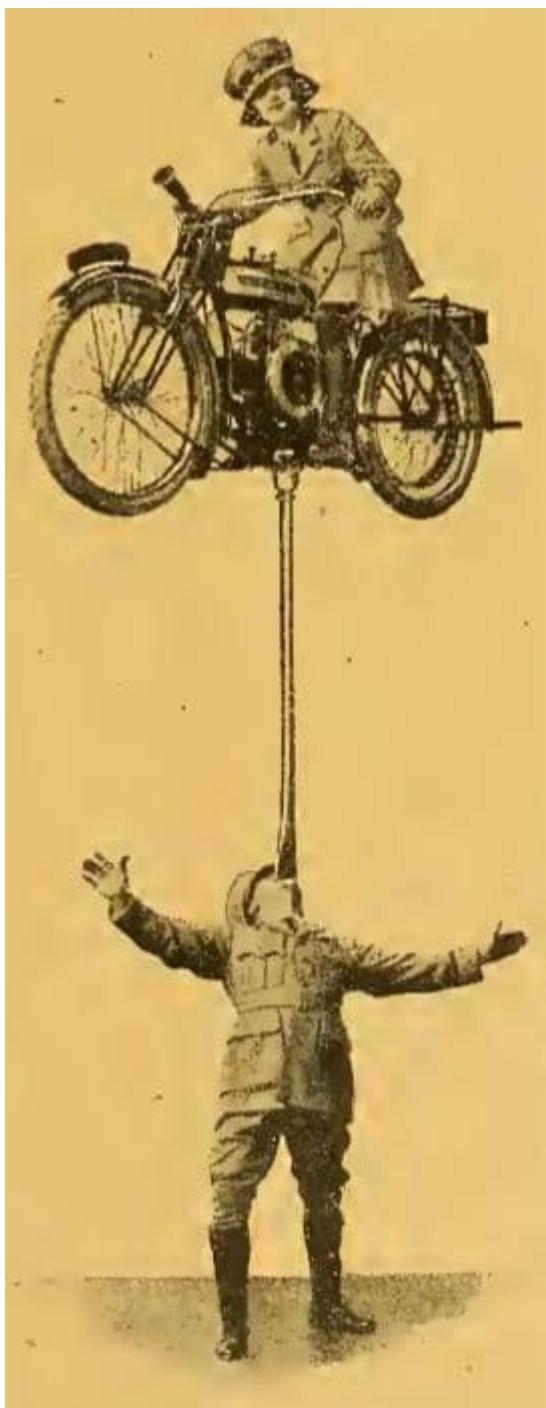
somewhat tempered by fixing the hour for the count considerably later in the afternoon, say, 3pm. This compromise would, at least, give the enthusiastic clubs a sporting chance, even though they dare not put foot to kick-start until the last stroke of the hour of midnight on the previous day. It is confidently assumed that our Yorkshire friends would welcome parties from Southern clubs, and in view of the foregoing facts and suggestions, it is repeated that the publication of the rules governing the 1922 Richmond Meet are awaited with interest. It is worthy of mention here that, in connection with the Second London Rally organised by this club, which takes place on Whit Monday (probable venue, Hendon Aerodrome) two Yorkshire clubs have already signified their intention of attending and that, in addition to the count taking place as late as possible in the afternoon, it will not be necessary for them, or any other distant club, to ride all night and thus arrive at the rally possibly too fagged to be able to participate in and enjoy ‘the fun of the fair’.”



“Great strength is claimed for the riveted steel frame of the 2½hp (245cc) Train-engined Rasser two-stroke, a new French lightweight made by M Rasser of Houilles.”

IXION, THE PROUD PAPA: “My small son—aged three—has already begun to follow in father’s footsteps. When knowledge fails to carry him any further, he speculates boldly. The advertisement columns of *The Motor Cycle* are his weekly joy, though he sometimes trips technically. The other day one of our advertisers pictured a telephone receiver on his page. Junissimus had never seen a telephone, but like his papa he was not going to be beaten by a little thing like that. ‘You pushes down that!’ he explained, pointing to the mouthpiece; ‘and the oil comes out there,’ pointing to the earpiece. Similarly with a mammoth sketch of a KLG plug. ‘You pull down that,’ indicating the terminal clip, ‘and the bang comes out there!’ pointing to the electrodes. The Editor has engaged him to undertake this column when I fill my tank for the last time.”

[A personal note: In 2010, at the Sunbeam MCC’s first Ixion Cavalcade in Bexhill-on-Sea (where Ixion was parish priest) I was introduced to Junissimus and was privileged to shake the hand of Ixion’s son—Ed].

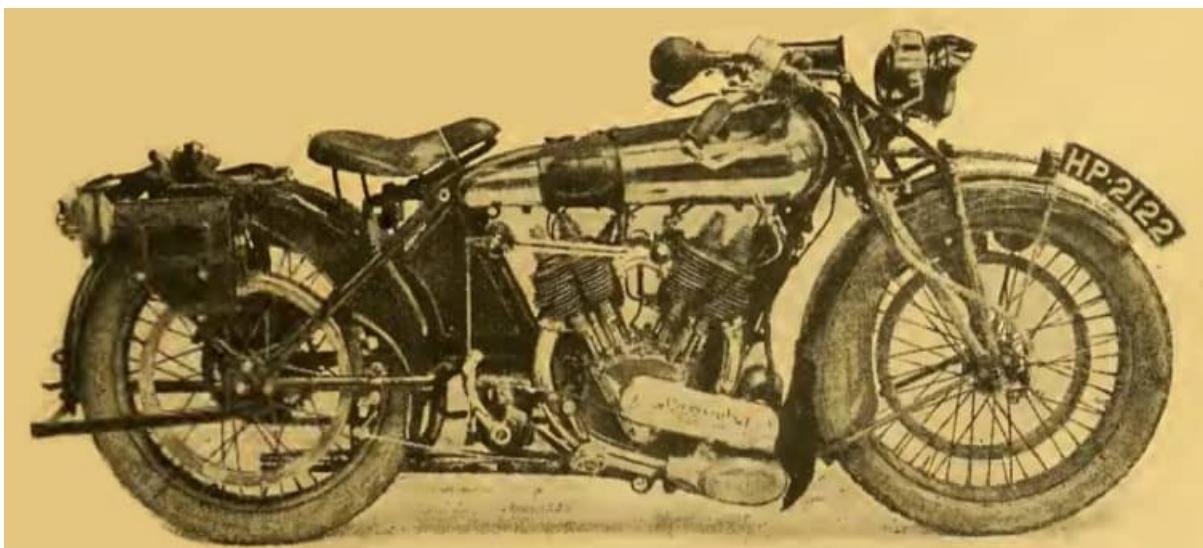


"Balancing—in a new sense. Quite a remarkable feat of balancing a Douglas motor cycle and rider has been introduced to the music-hall stage by 'The Airos'. When the picture, which is quite genuine, was taken, the engine was running, albeit misfiring, at about 500rpm!"



"QUITE A CONSIDERABLE NUMBER of motor cyclists may be regarded as enthusiasts, and of this number a large proportion long to possess a solo mount, well finished in all respects, and capable of high road speeds without apparent exertion. It is for such as these that Mr George Brough has laid himself out to cater, and his wide experience in sporting trials has provided him with a valuable source of knowledge of the special requirements of this type of rider. A comparatively small output in a specialised line enables him to give personal attention to every machine turned out from the works, and the resulting product is therefore likely to be ideal for the sporting soloist or for use with a light sidecar. Price, of course, must be a secondary consideration, but the Brough Superior compares favourably with machines of its class. The latest Brough Superior model incorporates the new 8hp side-by-side valve JAP engine with roller bearing crankshaft. This engine is a remarkably 'clean' design, and at the outset we may state that, though the machine which we tested had a big mileage behind it, the engine was extremely quiet and was the most effortless and vibrationless V-twin that it has been our good fortune to handle. As regards flexibility and power, it is possible, on the sidecar gear of 4.28 to 1, to crawl through busy streets or to accelerate on open roads to speeds often talked of but seldom accomplished. This without touching the gear lever, and with only reasonable clutch manipulation in traffic. This is due to the wide weight-power ratio and the flexibility and power of the new side-valve JAP engine. Pulling sweetly and evenly at all speeds, the engine gives one an extraordinary feeling of confidence, which is increased by the excellent balance of the machine, and though the writer had not handled a Brough Superior for over a year, he was immediately at home on the big machine. Even after a stop of some two hours in wintry weather the engine was quite free and started easily, ticking over without fuss or rattle. A 30 mile run at speeds best left to the imagination seemed to improve the general qualities of the engine rather than otherwise, and on every occasion on which it was employed the machine behaved so admirably that our parting was regretful. It is a difficult matter to find a hill with a gradient sufficient to test the powers of such a mount, and we had to content ourselves with intentionally placing the machine at a disadvantage with a view to discovering its true virtues. As an instance of this, the Brough Superior was driven up a slope of 1 in 9 dead slow on top gear, yet while still on the gradient a touch of the throttle caused the machine to accelerate rapidly and without a symptom of hesitation. Again on a trip through devious and twisting byways we intentionally took acute corners on greasy roads without changing gear. In every case a little clutch slip was sufficient to ensure a safe turn and rapid acceleration. If, however, under such circumstances, one drops into middle gear, as all good riders should do, the 'get away' is terrific, yet perfectly smooth. Any tendency to harshness in the all-chain transmission is effectively damped out by

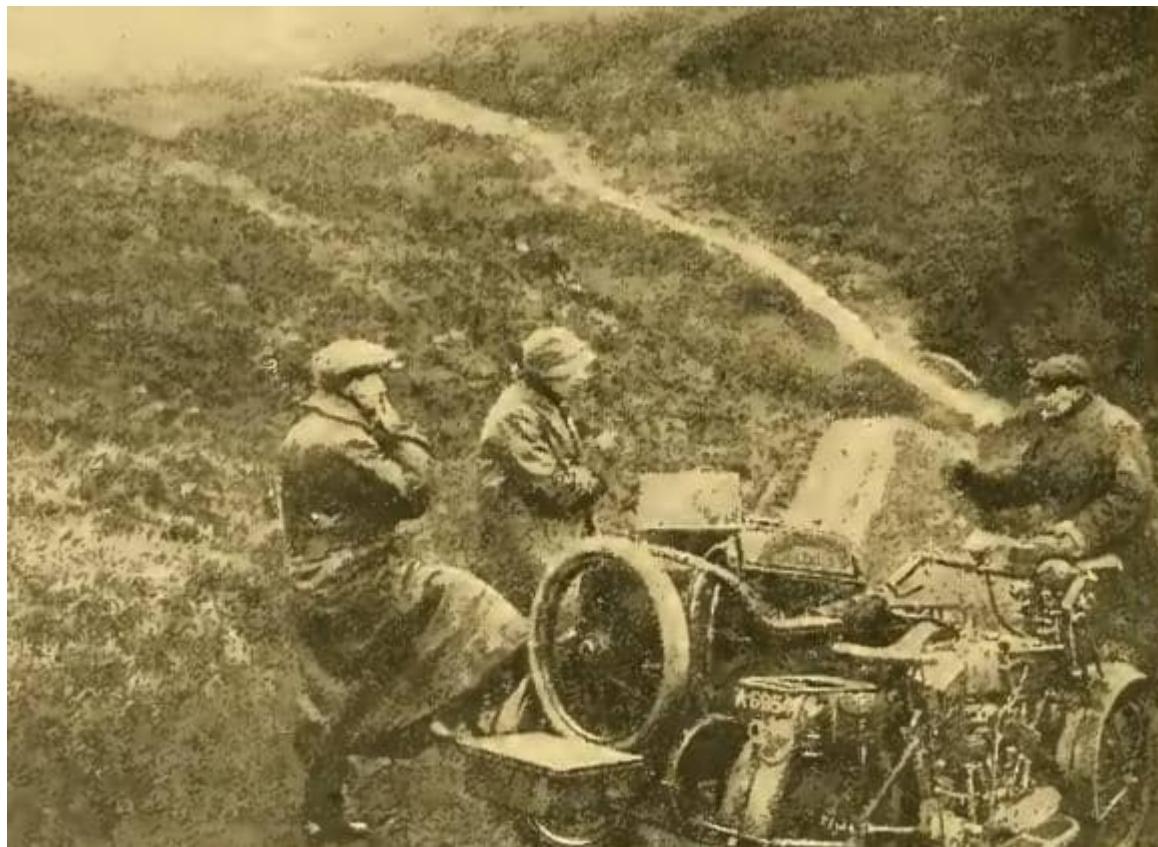
the cushion rear hub; and a recent modification of the front chain guard provides for the protection of both top and bottom chain runs, though the centre part is left open to facilitate adjustments or



"The side-valve 8hp Brough Superior. Note the Montgomery forks. The pannier tool bags are extra fittings."

repairs. Clutch and gear box are of the usual Sturmey-Archer type, and well up to the power of the big engine. One cannot help admiring the neat way in which so large an engine is housed in so small a frame without a suspicion of overcrowding, and on riding the big 'eight' one has a sensation of bestriding a handy lightweight with the power and road-holding qualities of a big machine. The 3in tyres attend to the rider's comfort, and are materially assisted in this respect by the Montgomery leaf spring fork and a large and comfortable saddle, while the steering angle and trail are the result of considerable experimental work. Certainly these experiments have been worth while, for we can testify that the Brough Superior handles well in grease and over loose stones, a test which has proved too much for many an otherwise excellent machine. It is not only in points of major importance that the Brough Superior excels, for every detail is carried out with care, and the finish is superb. Only two small criticisms occur: (1), that the finish is a trifle showy for the every-day rider (yet the plated tank cleans up easily and satisfactorily on account of its smooth and rounded shape, and have we not already suggested that most motor cyclists are enthusiasts?); (2), that on the actual machine we tested the steering lock was rather limited. We hear, however, that this point has already received the attention of the designer, and that no future machines will suffer from this slight defect. Mudguarding is good, the brakes are sensible—especially the parallel action rear—the toolbag behind the saddle tube is ample in capacity, and is in the correct position, and the handle-bar operated oil pump is neat arid very convenient. The fates have decreed that our road tests of this particular make shall be accompanied by snow, and the last occasion was no exception to the rule. This provided us with ample opportunities for testing the machine under all conditions of slush and slime, which it survived with credit, but the inclement weather somewhat curtailed our experiences with the smaller MAG-engined model. In spite of this we were able to verify the fact that the 6.5hp MAG (72x90mm=748cc) is a very sweet-running engine of no mean performance, and it is sufficient to remark that the rest of the machine is almost identical with its larger brother. Its weight, however, is 251b less. In conclusion, there is just one word of warning which should be issued with every Brough Superior. The comparative novice should insist on an accurate speedometer,

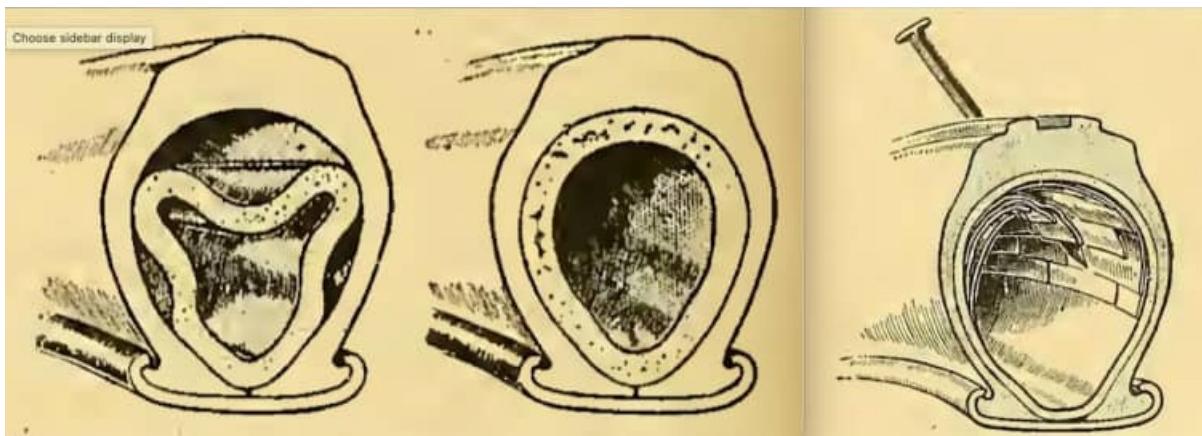
for in spite of the fact that the machine will run slowly and steadily, so smooth is the engine and transmission that one is more than likely to find that one's actual road speed is nearly double the intended figure."



"The trials committee of the Western MCC (Glasgow) has spent much time arranging a route for the club's Two-Day Easter Trial. Much of the course embraces new ground. Mr WN Simpson, president of the club, and two members inspecting one of their 'finds'."

"PNEUMATIC TYRES MADE MOTOR CYCLING POSSIBLE. Unfortunately, they also made punctures possible. and, although the larger and better tyres of to-day are not so susceptible to these annoying occurrences as were the diminutive covers of yesterday, the bogey is always with us. But perhaps it will not be ever thus; for several very promising 'unpuncturable' tyres (or tubes) are making an appearance. We illustrate two new inventions. The Jeff patent tube has passed the experimental stage, and is now available to the public...It is quite different from anything of the kind attempted before, and consists of what externally looks like an ordinary air chamber, but inside is a series of rubber flaps overlapping one another, with the result that any foreign object which penetrates the outer cover and tube merely pushes the flaps to one side, and when this object is withdrawn the hole is immediately sealed by the flap beneath it being forced upwards by the pressure of air. Mr HFS Morgan, the well-known exponent of the three-wheeler which bears his name, has recently put this tube to a very severe trial, when, after driving seven nails through the cover, he found the tyre quite hard. He then penetrated the cover with several ordinary nails, a bradawl, a strong needle, a sharp scriber, and one or two blunt file ends, and the tube still retained air. On quite another principle the Compression puncture-proof tube is of considerably greater thickness than one of standard pattern and the circumference of the outer cover which it fits. In its deflated form it is moulded with deep corrugations on the sides, but when inflated the corrugations straighten out, thus conforming to the internal contour of the cover. When inflated, instead of stretching the tube, the air pressure compresses the

rubber, so that, if punctured, the holes made by nails or other puncturing agents are closed automatically. It is claimed that it is more resilient than the ordinary tube, and requires 25% less air pressure...the concessionaires, state that if the tubes are fitted to their Tulsa cord tyres they will be guaranteed against punctures and all defects of manufacture for 10,000 miles."



"Deflated, the Compression tube takes the shape shown on the left; inflated, it is forced to conform to the outer cover, the rubber being in compression. When a nail penetrates the Jeff tube it simply pushes aside the flaps which on withdrawal of the puncturing agent automatically seal up the hole."

"THANKS TO A CHANGE OF COVER," Ixion reported, "I had a Challenger tube lying around my office last night and proceeded to demonstrate it to two incredulous visitors. The mere fact that I was prepared to inflict umpteen punctures on my own property no doubt carried a certain amount of conviction. I thought I had destroyed this by my first test, for I had such confidence in the tube that the weapon selected was the marlin-spike on a camping-knife possibly half an inch in diameter. I thrust this well through the tread till its tip distended the inner periphery of the tube and then withdrew it. A nasty hiss followed; but, even as my guests opened their mouths to crow at me, the hiss ceased, for with a vicious 'plop!' a goblet of black mastic surged up from inside the tread and sealed the hole, no material pressure having been lost. When more modest weapons, approximating to wire nails, were used, there was no hiss at all."

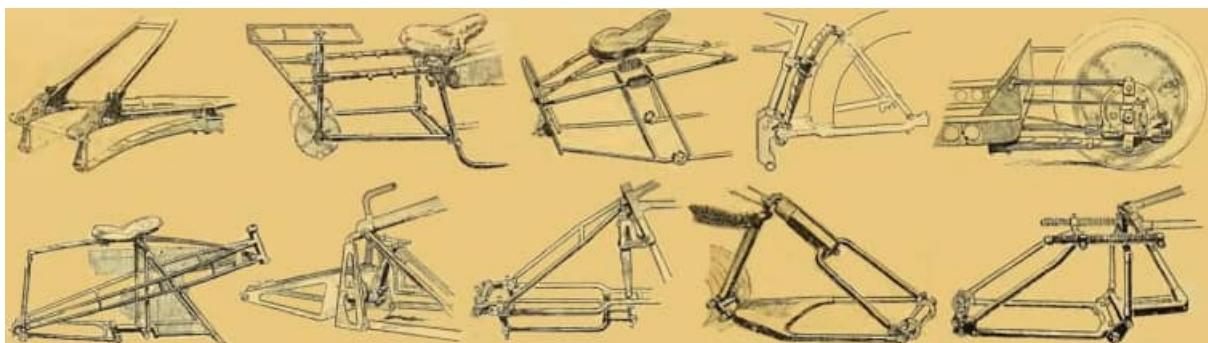
THE 684-MILE PARIS NICE TRIAL attracted 45 bikes, ranging from 250-1,000cc. Any rider who failed to average 25mph was eliminated which made life hard for the lightweights; despite a couple of 60min extensions only three tiddlers were among the 25 finishers. There were few British riders but the first three 500cc class were two ABCs and a Sunbeam; the first three in the 750cc class were an ABC, a Triumph and a Beeza.



"The Terrot team of French lightweights, two of which completed the journey within the time limits. (Right) A motor scooter rider, Durand (Monet-Goyon), who finished without penalisation is shown in the centre of the right-hand group."

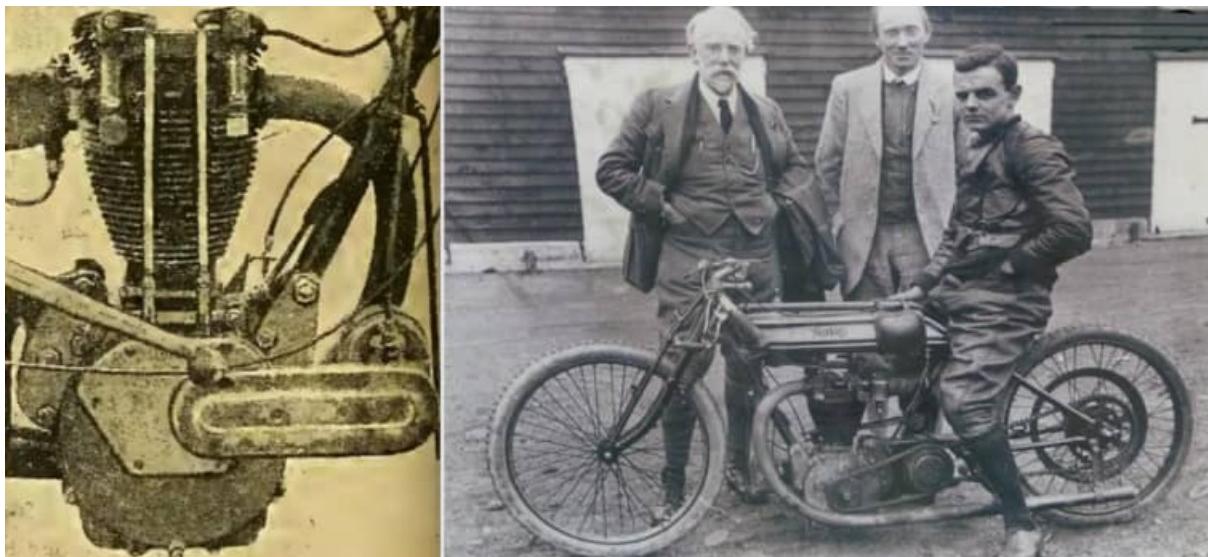
"THERE IS NO QUESTION ABOUT the popularity of the motor cycle in England, but in America it would be useless to claim that motor cycles find universal favour. An American journal just received is using great efforts to show the wide use of the motor cycle in England by every class of rider, from the highest in the land to the lowest."

"WHEN MOTOR CYCLES ARE SPRUNG more or less from end to end the springing may be divided into three classes: (1) That in which the whole frame except the rear wheel attachments, sometimes including the carrier, is sprung; (2) A method of springing applied to the driver and the principal parts of the mechanism, the rear wheel being mounted in a rigid part of the frame extending to the head; (3) A partly duplicated frame providing spring suspension for the saddle and footboards or footrests."



Suspension (left to right, from top): Coulson, ABC, Dot, Beardmore, Unibus, McKechnie, Haag, Stanger, Peters, Hobart.

RECORD BREAKING IN 1922 HAS been opened. Riding a new ohv 3½hp Norton (70x100mm=490cc), RN Judd lowered the international mean speed figures for the kilometre and mile on March 15th." What would become known as the Model 18 set kilometre and mile records of 89.92mph and 88.39mph respectively. "Judd's previous speed for the kilometre, attained a year ago, was 86.37mph, while the speed of the last holder of the international one mile record, EB Halford (3½hp ohv Triumph), was 83.91mph. Although the overhead valve Norton has been something of an open secret for quite a while past, this is its first official appearance in the public eye, and no doubt, ere long, it will be a formidable contestant in the lists for the kilometre and mile British records. At present the ultimate speed in the 500cc class appears to be G Dance's 93.99mph over the flying kilometre with the 3½hp Sunbeam."



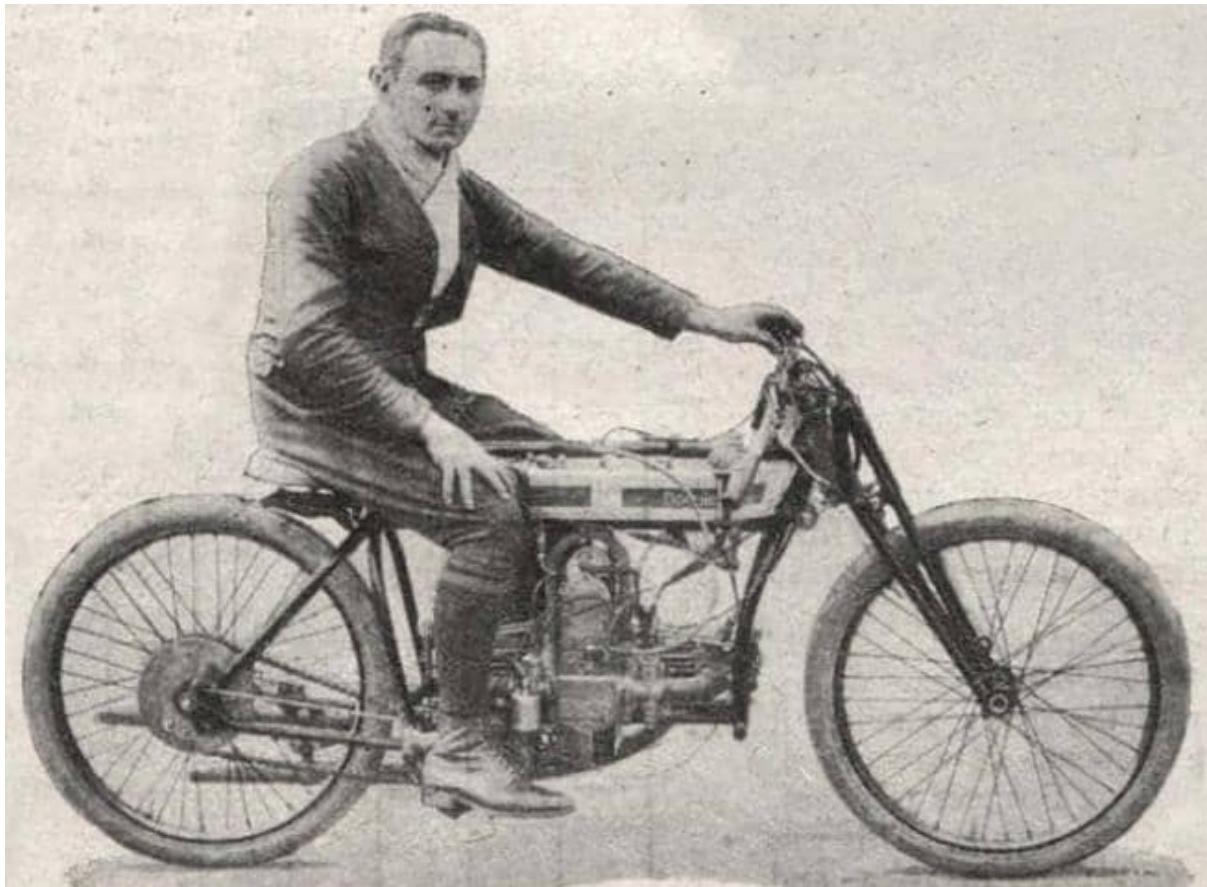
"An experimental Norton racing engine or 490cc with overhead valves, which made its successful debut at Brooklands on Wednesday of last week. This model is for the track only, and is not available for the market." (Right) Rex Judd astride the ohv Norton, with Pa Norton and 'Wizard' O'Donovan, who designed the new world record holder.



"RN Judd being carried off the Brooklands track by his enthusiastic colleagues after breaking the one-mile mean speed record on the new ohv Norton. Mr JL Norton will be observed wheeling the machine."

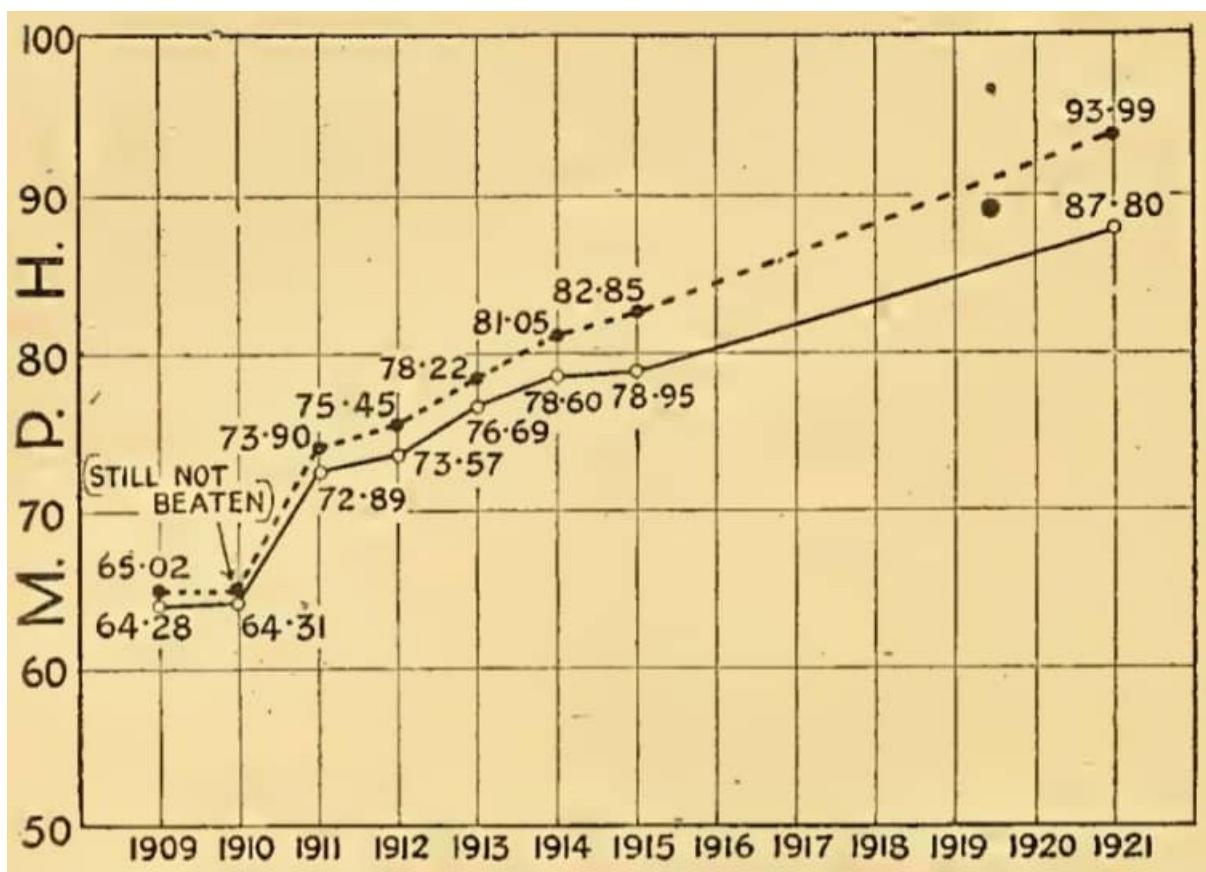
"TWELVE MONTHS AGO 100MPH ON a motor cycle of any power had yet to be accomplished in this country; last week a 500cc machine, of the popular '3½hp' class, attained the magic figure, the honour of being first going to CG Pullin on an ohv flat-twin Douglas. Several people were known to be in the running for some time past—George Dance on a new ohv Sunbeam, FB Halford on a four-valve Triumph, RN Judd in combination with DR O'Donovan and the ohv Norton, and CG Pullin and his Douglas—but actually the tussle resolved itself into a duel

between the Norton and Douglas camps to be settled before the other two made an official reappearance on the track. The game was opened on Tuesday of last week by CG Pullin (TT winner of 1914), who succeeded in sending up Dance's (Sunbeam) 93.99mph for the flying kilometre nearly 5mph to 98.11mph, and Harford's 87.89mph to 93.26mph for the mile. Hand timing was employed in this instance. On the very next day, however, incidentally a bitterly cold one, Judd decided that the ohv Norton had already proved fast enough to better these amazing speeds. Accordingly an attempt was made, this time with electrical timing, for it was recognised that an error of a fraction of a second might mean the difference between success and failure. At first ill-luck attended him, and a broken inlet valve spring caused some delay. It was nearly lunch time before the overhead Norton was lovingly pushed half-way up the test-hill—to



"To the 3½hp ohv Douglas has fallen the honour of being the first 500cc machine to attain a speed of 100mph. It was ridden by CG Pullin at Brooklands on March 23rd."

ensure a certain start—but once going it was only a matter of seconds before it was all over. At his first Tim he lifted the mile and kilometre speeds to 97.35mph and 98.50mph...As we indicated last week, this design is in a very experimental stage; so much so that lugs are cast in the cylinder head for one type of valve rocker gear, while an entirely different type is used...All the Norton people were confident that they had by no means reached their limit, and that even more startling speeds would be reached very shortly. All this time, however, Pullin had been working steadily in an endeavour to extract an extra ounce or two of power from his Douglas, and it is said that not before two o'clock on the following morning did he cease from this labour of love...His industry was rewarded, for a few hours later, on Thursday, there fell to him the signal honour of being the first man to be timed officially on a 500cc machine at 100mph, and also to regain the flying-mile and kilometre records...Pullin's 100mph was accomplished over the second measured half-mile, his exact time being 17.89sec=100.06mph."



"Annual progress of the flying mile (full line) and kilometre (dotted line) records from 1909 to 1921. Last week 99.98mph was attained over the flying mile."

"YESTERDAY," IXION REPORTED, I WAS poised in dumb adoration before an ultra-modern outfit with instrument board, interchangeable wheels, spring frame, hood, screen, and several billion gadgets (note the diminutive, implying the presence of a cigar lighter, variable jet, mechanical oiler, and all the other small fry). My agile brain fled back at a tangent to AD 1902 or so, when I used to transport my particular packet of fair femininity in a forecar, scaling about 180lb all-on. It had a 76x80mm engine with automatic inlet, direct belt drive, accumulator ignition, 2in Clincher tyres, and brakes consisting of a Bowden horseshoe astern, and two bands in front with the circumference of a florin apiece. Yet 'Me and ma Gal' actually toured Devon in this outfit. What's more, my taste in gals ever inclined—like the Kaffirs, I believe—to plumpness. What's more, we never had any serious trouble with that outfit, though we reeled off 5,000 miles on it. Punctures were our one real foe, with belts in the background. Hills? Well, we dodged the worst ones; and the others we took in three charges: charge 1, 'Ixion' and Miranda seated; charge 2, Miranda unloaded for a walk, 'Ixion' descending and making a fresh rush; charge 3, 'Ixion' and Miranda running alongside, with 'Ixion' pushing and Miranda pretending to push. Naturally, there is no real comparison between the 1922 super sidecar at 8cwt and my own tricar at 180lb. Still, I daresay there is still a market for the economy two-passenger motor cycle, and a few specifications like the Harper indicate that some designers have long memories."

A STUDY FOR PESSIMISTS.



"RACING A MOTOR CYCLE ENGINE whilst on the stand is a detestable habit. It is tolerated in a garage, or under special circumstances on the road, but when an individual persists in stepping and starting his engine 20 times in the course of a quarter of an hour for no apparent reason, one does begin to feel one's nerves fray. The obvious course was for me to quit the place I had chosen for my lunch, but being such a delectable spot I hated to leave it. A narrow grassy lane led past, the rose-embowered cottage and on to undulating tilth and pasture. The setting of the little house was perfect. Nothing marred the harmonious whole except the tinkering motor cyclist. Fleecy clouds drifted across a blue sky, and a faint smell of burnt wood bark and peeled willow pervaded the air. A moment's cessation, a moment of heavenly silence, when the bees could be heard buzzing from flower to flower. I filled my pipe, and thanked Providence that the fellow with the machine had by his time ceased to tinker. Ordinary tuning I could have understood, but what tuner would allow his engine to rev appallingly for minutes on end? The spell of silence was short, however, and once again the din started. This time I decided to investigate, and approached the cottage, where I saw a youth of 20 or so in a red blazer and white trousers standing in a curiously intent attitude listening to the beat of the engine. Occasionally he shifted the lever and allowed the engine to tick over. To be just, it must be admitted that the engine appeared to be in perfect tune. He throttled it down until it just tickled over, then opened out to a lively, healthy roar. Somehow the noise did not seem half so bad when the machine was in sight. But why didn't the fellow try it on the road? I stood in full view expecting him to speak, seeing that I could not be mistaken for anything but a motor cyclist. Such was my conceit that I felt piqued at his indifference, and prepared to move away. An indifferent unsociable sort of a bounder, thought I. But, why should he, at home in his own garden, turn to accost a perfect stranger? But a strange feeling compelled me to remain where I was, and at last he straddled the machine and dragged at the stand. The engine was just ticking over as he paddled it down the miniature drive. I had just moved aside when a matron rushed from the house in apparent alarm. 'Dick!' she cried, hurrying after him. 'What are you doing? You must be mad.' The boy smiled, and waved a reassuring hand. 'Don't alarm yourself, mater,' he laughed, 'I'm only going to feel the road, just feel what it is like.' The lady in grey stood in the pathway, the picture of nervous apprehension, and watched the youth pass through the gateway. The scene is fixed vividly in my mind, although at the time I had no notion of its significance. The grey lady, the little drive lined each side with green velvet and Mrs Simkins pinks, the white-washed cottage in the background, and the indifferent youth. He looked directly at me, but my presence created no more interest than a mere handcart would have done. Straddling the machine he let in the clutch and the machine moved a yard or two on low gear towards the hedge. Directly the wheel touched the grass he stopped the engine, and wheeled the machine back towards the gate. Curiously enough, the lady in grey did not show any surprise, but opened the gate for him to enter and helped him through. It was just after he

had pushed the ‘bus back on the drive that a thought occurred to me, and I strode to the gateway. ‘Anything wrong?’ I asked. ‘Perhaps I can give you a hand.’ I was quite close to the lady in grey, but the response came quickly from the youth. He turned, and, with a flushed but smiling face, ‘It’s all right—thanks, thanks.’ And as he moved, away the lady turned to me. ‘He’ll never ride again,’ she said quietly. There was a moment of silence, then she added with a break in her voice: ‘He was blinded in France—no, he will never ride again, the doctor says so.’

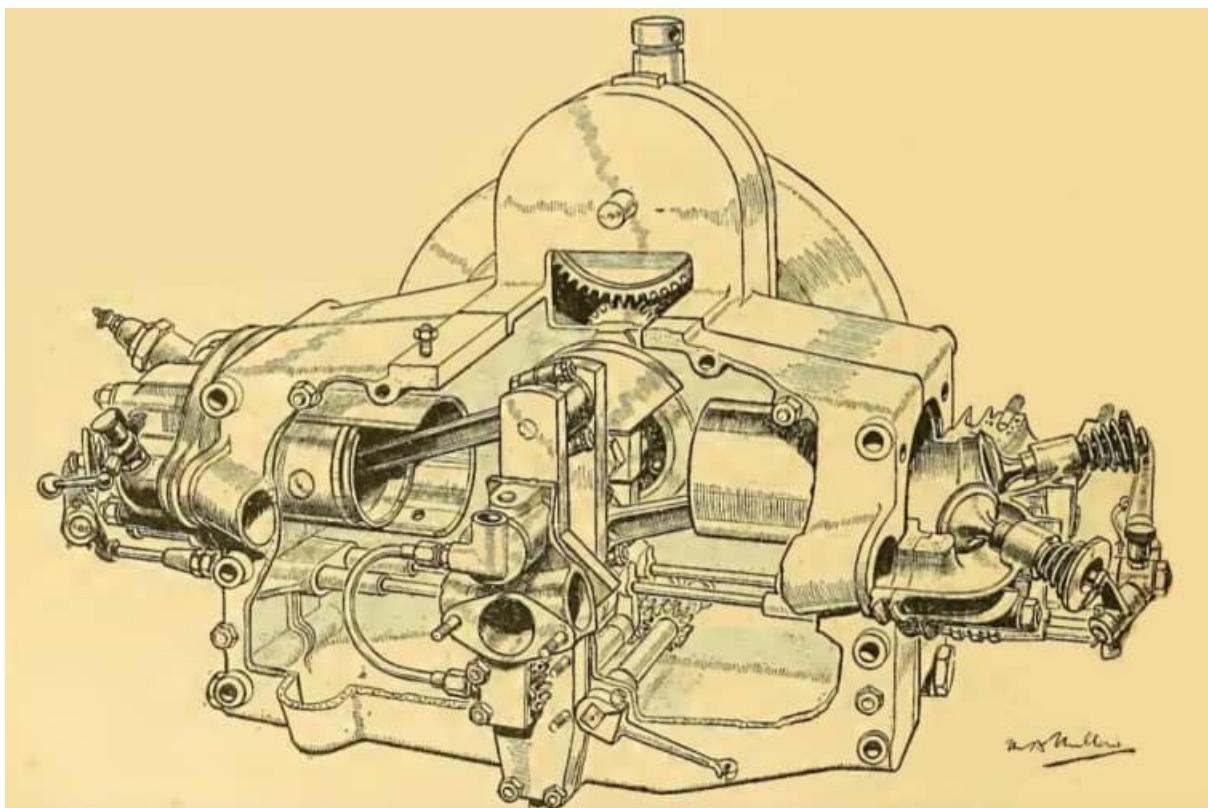
Friar John



“The side-wheel. An outfit in use in Germany wherein the sidecar body is dispensed with. A framework is fitted over the ‘sidecar’ wheel to which is fixed an ordinary bicycle saddle and fixed handle bars. On this device the passenger is even more exposed than the driver. A similar attachment was marketed in England during 1912-13.”

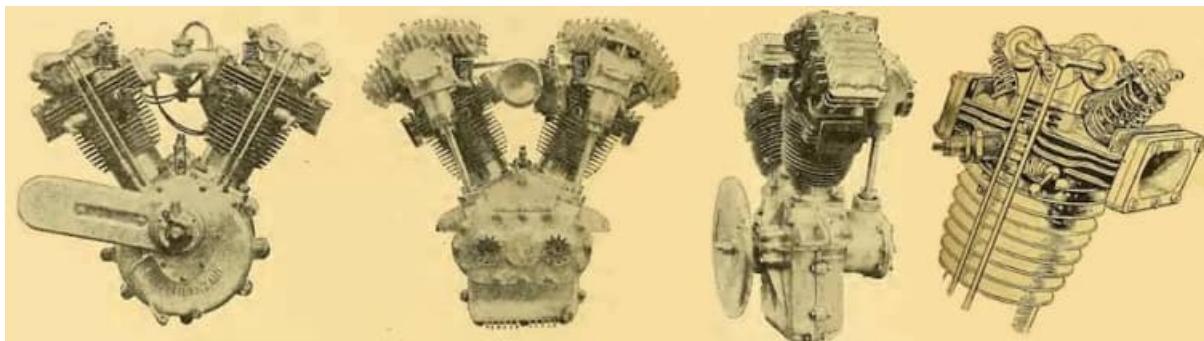
“IN CONSIDERING THE MOTOR CYCLE as a whole, the engine presents most scope for improvement and individuality. In consequence it has received the most attention, and though transmission, frames, and springing are all capable of considerable improvement, it is right that the motive power should have first consideration...Not by a very long way have we reached the limit of power output per unit of capacity, nor of thermal efficiency, but steady progress is being made, and the popularity of small engines even for long-distance touring is a sign of the efficiency of modern designs generally...A study of the laws governing gas flow has caused port design to be modified to a very considerable degree, enabling a greater weight of charge to be induced in a given time, and avoiding obstruction to the flow of exhaust gases. This in itself tends to raise the actual compression at large throttle openings, and better cooling has also

enabled even higher actual compression ratios to be employed. Easy ingress and egress of the charge brought high revolutions into the realm of possibility, but before these high engine speeds could be used to advantage it became necessary to lighten reciprocating parts so as to avoid undue bearing stress due to the rapid acceleration of masses constantly reversing in direction. This reason has brought the aluminium piston into prominence, and though much trouble was experienced with some early designs, the type has come to stay...The correct location for valves is still disputed by many, but there can be no doubt that a well-designed overhead valve engine is capable of higher all-round efficiency than the side valve type, though a badly-designed overhead valve engine is a thing to be avoided at all costs...Two innovations of recent date show great promise, although they are distinctly unconventional as far as motor cycle practice is concerned. The first of these, the Bradshaw oil-cooled engine, is based on well-proved theories which came to light during research work on aero engines, and incidentally have great possibilities for all types, more especially in the case of multi-cylinder layouts, where direct air-cooling is a somewhat difficult matter. The second example of unusual practice, is the adoption of the Burt single sleeve valve by Barr & Stroud, Ltd, and both bench tests and road work with the B and S engine have clearly demonstrated the fact that it is possible to combine very high efficiency with almost entire absence of mechanical noise...There are many others which depart from the more commonly used designs in one way or another. The Triumph four-valve single cylinder is not the least important. The ohv Blackburne and the newer JAP power units have points of extreme interest, while lesser known engines such as the CAM, the B and H, and the British Anzani may create for themselves a place in motor cycle history before the year is out. At the present time Tourist Trophy racers are occupying the attention of many designers, and our knowledge in this direction inspires us to say that engine design is undergoing some remarkable changes. One hundred mph by a 500cc engine has not yet been achieved, but we can prophesy that this is only a matter of time—and perhaps not such a very long time. This is a matter for the 'tuning wizard' after the designer has completed his work, for it is certainly true—and we do not think any expert in theory will disagree—that whatever speed can be obtained by means of correct design theoretically, the rider-experts—of whom only a few exist—can improve upon it."



"Inclined over-head valves and oil-cooling are distinctly modern items in the 500cc Bradshaw flat twin engine. Oil spray supplied by a mechanical pump is continually splashing on to the enclosed cylinder barrels, the under-sides of the pistons, the valve-gear, etc. The inlet manifold cast with the crank case is also indicated." [This excellent illustration is noteworthy as the first fully sectioned engine drawing ever to appear in a motoring journal.]

"SPECIALLY BUILT TO WIN FOR ENGLAND the high-speed records at present held by America, the British Anzani racing engine (83x92mm=996cc) is a unit which promises to give an excellent account of itself as soon as it is ready for the track. There are four valves in each cylinder, and these are actuated by means of a special cam gear held in an oil-tight heavily ribbed aluminium case situated above the cylinder heads, each pair of camshafts being driven by two vertical shafts and bevel gearing...In the racing engine aluminium bronze is the material used for the cylinder head, which is carefully machined internally, and is provided with ports of enormous size...each cylinder has two plugs fired by its own double-spark magneto...This engine, it is claimed, has already developed 46hp at 4,000rpm, but even better results are expected. Of the same dimension, the 8-10hp sports model is built on somewhat similar lines to the special racing engine, but is a commercial proposition. On each head there is a bracket supporting the rocker shafts, which run on ball bearings packed with grease; like the racing engine it has four inclined valves to each cylinder. Adjustment for the tappet clearance is provided...The detachable heads, which are of the same design as those fitted to the racing engine, are in this case of cast iron...Die cast aluminium pistons fitted with a scraper ring and strengthened by internal ribs are employed...We are naturally looking forward to seeing the performances of these engines on the road and track. From the ingenuity displayed in their design and the excellence of the workmanship, they will no doubt give an excellent account of themselves."



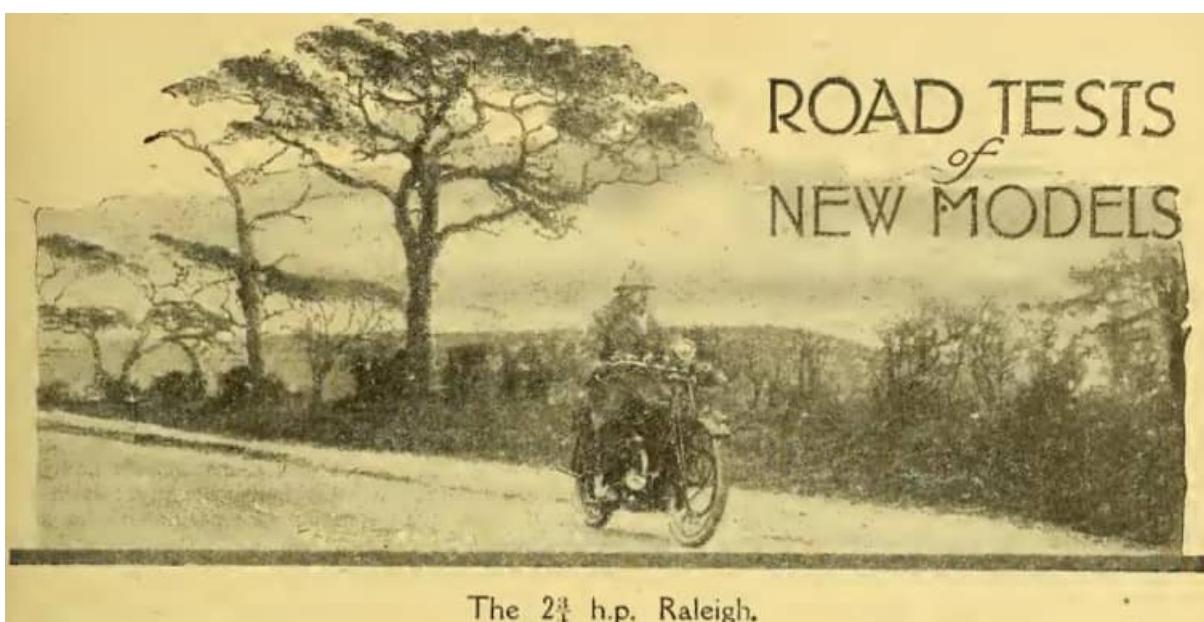
"The new standard sports model British Anzani; compare the simplicity of this model with the purely racing type. Specifically built to beat American records, the British Anzani 996cc V-twin, with overhead valve gear, two sparking plugs and one magneto per cylinder. Three-quarter view of the racing engine, giving some idea of the size of the valve ports. Overhead valve gear of the sports model British Anzani engine; note the size of the valve ports.

"SIR,—MY OVERALLS, BEING EX-WD STOCK, are distinctly 'baggy', and at times touch the plug. Thus, when they are thoroughly soaked with water, a circuit is formed along the overalls, through my hands on to the handle-bars giving an unpleasant shock. Have any of your readers been troubled in the same way?

Sivel."

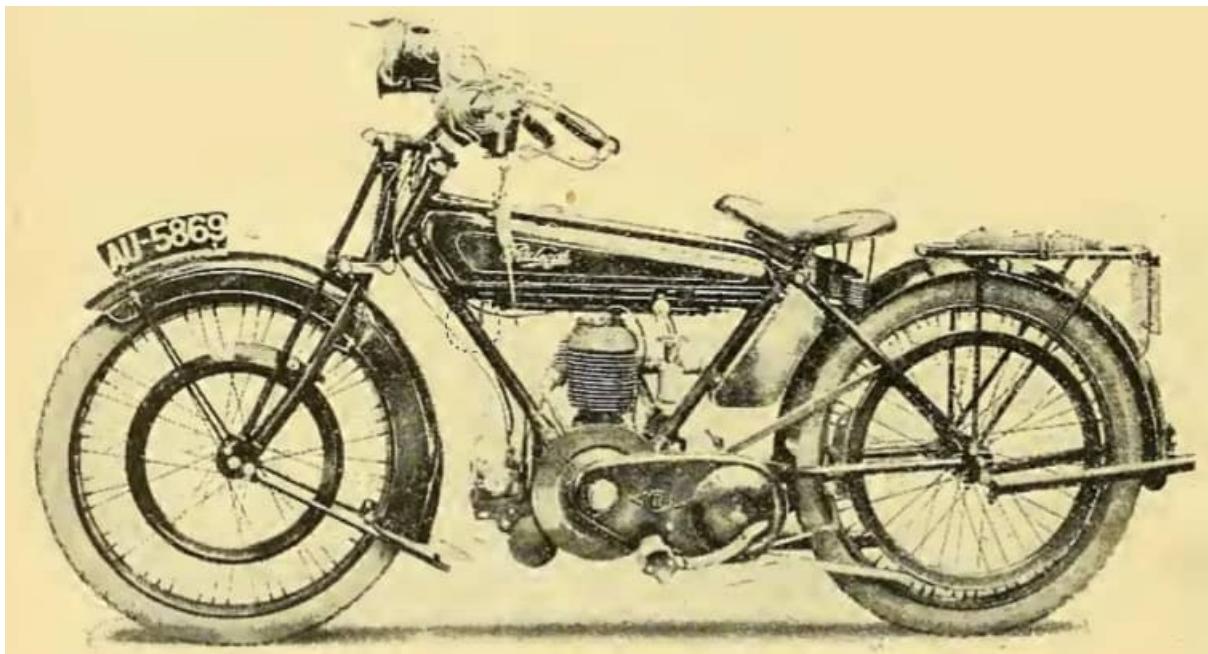
"WILFRID DUPUY, WHO LAST WEEK won his class in the Coeur-Volant hill climb, is the youngest French motor cyclist to possess a driving licence. He is 12 years of age, and had to compete with 501b ballast. He is the son of a director of the *Petit Parisien*."

"A MOTOR CYCLE CLUB HAS BEEN FORMED in Worthing and an open trial from Worthing to John o' Groats, thence to Land's End and finally back to Worthing, figures on its fixture card. Whether this event has received a 'permit' we are unaware, but apparently the Worthing worthies believe in tempting Providence, for the club flag is to be blue with a white circle, 'inscribed with the figures thirteen in red'."



"IN LOOKING BACK OVER THE YEARS one now sees that in 1913, say, it would have been a very safe prediction to have anticipated a great future for the sound, sturdy, and well-made 3½hp

single-cylinder, which was then really coming into its own. That we are on the eve of another similar epoch is felt by most of those who are in close sympathy with the motor cycle movement. To-day, however, the decade on which we are opening will assuredly be the decade of the 2½hp single. Typical '3½' machines have outgrown themselves and developed into heavy mounts far more suitable for sidecar work than for even merely occasional solo riding. True a sports type of '3½' has developed, but it is the result of the demerits of its overgrown parent, and for the average rider it remains a type that novices still regard as being too weighty, too fast, and too powerful. A machine for the man who invariably rides solo, yet who yearns not habitually for the joy of freak hill conquering nor for the thrill of ultimate speed, need have no greater cylinder capacity than 350cc. Such an engine will give all reasonable speed, may indeed give more speed than many roadster 4hp models, will climb any reasonable hills, and most unreasonable ones, and, finally, will provide occasional transport for two, either by pillion or by sidecar. Just as the 4hp has become a passenger model used for occasional solo work, so has the 2½hp single stepped up to take the vacated place as the ideal solo mount which at the same time is quite suitable for occasional passenger work. That the foregoing thoughts were inspired by the use we recently enjoyed of a 2¾hp three-speed Raleigh may be taken as greater commendation of the machine than anything we might say of the actual machine's performance under this, that, or the other circumstance. Handed over to us almost immediately after the ACU stock machine trial, the machine under review was in the condition in which it finished that event wherein it gained a special certificate of merit as a standard stock machine. Without any chance to become familiar with it, it was driven straight into the densest London traffic, and subsequently used for running in and out to business and a week-end's pottering, as well as subjected to tests on rough surfaces and hills. In all respects it gave good results such as one would expect from a machine bearing the distinguished name it carries and finished so handsomely as it appears to be. Ridden solo the machine's performance on ordinary hills was such that no use of the gears was called for on Surrey main roads, but departures into by-tracks occasionally demanded second, and on one occasion even produced knocking on that ratio, which caused a further drop to low; this, however, was due to a combination of mishandling and very low speed. A pillion passenger's extra weight on one jaunt proved that the machine was not appreciably slowed on hills by the double load, but,



"Flywheel side of the 2½hp three-speed Raleigh. The primary drive is on the out-side of the flywheel so that it is possible to guard it efficiently."

of course, the ability to climb hills slowly on top gear was reduced. Owing largely, no doubt, to its outside flywheel, the c Raleigh engine pulls exceptionally well at low speeds and in moderate traffic; its top gear of 5½ to 1 (roughly measured) is all that is needed in conjunction with the lightly-operated clutch. In very dense traffic middle gear was advisable and a smooth restart, even on gradients, could be made. Low gear was found to be too low for convenient handling of the machine in traffic on level roads, and should never be needed except on single-figure hills. Maximum speed is not abnormal, but it has a useful pace, and at 38-40mph engine vibration is not unpleasantly discernible. Riding position (and steering) is excellent, and both feet may remain firmly on the rests, even when the heel-brake pedal is in use on the near-side. The top gear position of the gear-control lever is rather out of reach, and might be higher with advantage. On the actual machine we tested petrol consumption was rather high, between 90 and 95mpg being obtained; 115 to 120mpg should normally be obtained with this size of engine. Starting from cold was also none too easy, unless liberal injections were made. Both faults, however, could no doubt be eradicated at once by suitable carburetter adjustments. To sum up in a sentence, we consider that the 2½hp Raleigh, without being superlative in any one direction, combines as many sound and workmanlike qualities as one would wish to find in a mount; withal the value for money is good, for it is sold at a competitive price."



"The Bristol Tramways & Carriage Co's fleet of sidecar-mounted bus inspectors. Five BSA machines are shown, the sixth being in process of overhaul. Observe that all the sidecars are fitted with Easting screens...each carries a box of spares for the 'Bristol' bus, in addition to its own motor cycle spares; the bus spares include such items as a contact breaker, valves, springs, etc, electric light bulbs and a number of other useful parts."

"FROM TIME TO TIME THERE APPEAR in print indictments against what it pleases certain writers to term the 'super-knut'. They tell us he bestows lavish care upon his person, bedecking himself in much earnest in helmet, goggles, and generally conspicuous clothing, while in many cases his mount is obviously lacking the most elementary attention. That he may be recognised in any crowd as a motor cyclist, they would have us believe is a crime in itself. They draw for themselves pictures of this indelicately equipped person, generally, be it said, grossly exaggerated, and then we are treated to a long dissertation on 'making the countryside hideous with dense volumes of smoke and ear-splitting reports—all part of a plan to attract attention'. The necessary connection between wide TT handle-bars and a riding helmet, or even between an open exhaust and blue smoke, is hard to see. That nuisances do exist is not to be denied, and much to be regretted, but I very much doubt if the abandonment of the riding helmet, brightly hued scarf, etc, would produce a wonderful change in the countryside. Take the ordinary family man, who, far from being a road-hog, is content, perhaps, with a comparatively ancient machine, and whose use of the roads is limited to week-ends. After his first two or three ventures in true November weather he decides that the ordinary cap, or soft felt, leaves much to be desired in the way of comfort when riding; that an upturned coat collar is hardly proof against the cold winds he is going to contend with; and again that something to augment the so-called freedom from mud which his machine affords, and at the same time maintain as warm limbs as possible, is very desirable. For this man, if he is to equip himself for his job, as all other sportsmen do, naturally turns to articles specially designed and sold to meet his need, so we find him wearing leather fleece-lined helmet, woollen scarf, and leather knee-boots—and arrayed thus he becomes, automatically a super-knut so called. How would the sight of Tottenham Hotspur playing football in dancing-pumps or a cricket team playing in boxing-gloves appeal to these critics of ours? And yet the motor cyclist, because he is such, is to be precluded from equipping himself in accord with the requirements of his sport. Again I say that the riding helmet does not have such a deleterious effect on the brain of the wearer as to compel him to ride a real hogibus, famous for noise, smoke, and finding the killjoys.

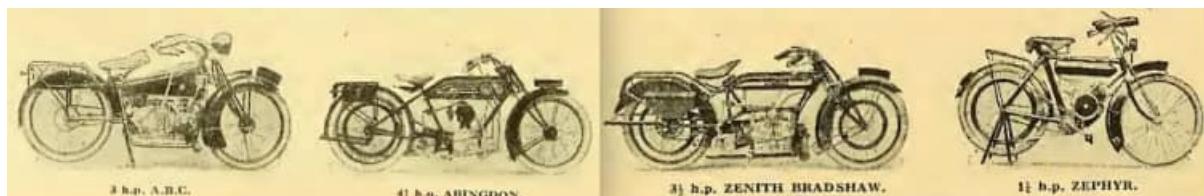
Reneve



"Some buyers 'guyed'—further spring foolishness by Gordon Crosby." Crosby was arguably the greatest automotive artist of them all.

EVERY YEAR SINCE 1906 The Blue 'Un had published a Buyers' Guide. The marques listed for 1922 were: ABC, Abingdon, AJS, Alecto, Allon, American X, Ariel, Armis, Atlas, Banshee, Bat, Beardmore, Blackburne, Bown, British Radial, British Standard, Bradbury, Brough, Brough Superior, BSA, Campion, Carfield, Calthorpe, Cedos, Chater-Lea, Cleveland, Clyno, Connaught, Corona, Cotton, Coventry Eagle, Coventry Victor, Coulson, Dane, Diamond, Dot, Douglas, Dunelt, Duzmo, Economic, Edmund, Endurance, Excelsior, Francis-Barnett, FN, Gamage, Grigg, Hack, Hawker, HB, Haden, Harley-Davidson, Hagg, Hazlewood, Henley, Henderson, Hobart, Humber, Indian, Invicta, Ivy, Ixion, James, JES, JNU, Kempton, Lea Francis, Levis, Lincoln Elk, LMC, Martinsyde, Massey Arran, Matchless, Marlow, Mars, Metro-Tyler, Monopole, Mohawk, MPH, Motorped, Mountaineer, Neal-Dalm, Ner-a-Car, New Comet, New Hudson, New Imperial, New Scale, Nickson, Norton, Norbeck, NUT, OK, Omega, Paragon, Pax, Peters, Powell, Priory, PV, P&M, Quadrant, Radeo, Raleigh, Ready, Reading Standard, Revere, Reynolds, Rex-Acme, Rockson, Royal Enfield, Royal Scot, Rover, Royal Ruby, Rudge-Multi, Rudge, Sarco Reliance, Scott, Skootamota, Silver Prince, Sirrah, Sheffield Henderson, Southey, Stanger, Sun Vitesse, Sunbeam, Supremoco, Trump, Triumph, Unibus, Verus, Victoria, Vindec, Velocette, Wool, Wooler, XL, Zenith, Zephyr. To save you counting, that's 139 marques—of which 85, including

P&M, concentrated on a single model. Among the household names, AJS offered two; Ariel, four; BSA, two; Matchless, two; Norton, two; Triumph, four; Velocette, two.



With 139 marques on offer enthusiasts were spoilt for choice—from ABC and Abingdon to Zenith and Zephyr.

MOTOCYCLETTE LEVIS

MOTEUR	2 temps, 2 1/4 HP. 62 × 70 m/m.
FOURCHE	élastique
ROUES	de 600 × 60
POIDS	50 kilos
RÉSERVOIR contenant 7 litres essence, 2 litres huile	
BOITE 2 VITESSES et embrayage	
TRANSMISSION : Chaîne et courroie	

PRIX
Modèle T.T.
sans boîte

Cliché Ioffelevich 2145

L. PSALTY & DELABRE, Agents Généraux pour la France
50 Rue Brunel, Paris (17^e) Téléphone : Wagram 24-66

"THERE ARE SOME WHO MAY CRITICISE the organisers of the ACU Western trial for arranging an event scheduled to cover 230 miles so early in the year. Nevertheless, they can hardly be blamed for the extraordinary conditions which prevailed on Saturday last [All Fools' Day]. Starting from Cleint in the early morning, the roads were frozen and dusty, and though an icy wind was blowing there was every prospect of the hills being in dry condition. Before reaching Cheltenham the roads were covered with snow, and only a few miles further on the route was blocked by four-foot drifts, no traffic being possible in places. A detour was made, but for a matter of 35 miles progress was but little more than a fast walk, and near Warmley the roads were again impassable. Conditions improved on nearing Bristol, but so great was the delay that the stewards wisely decided to conclude the trial at Clevedon—originally intended as the lunch stop. After a stewards' meeting it was



"Other competitors lend a hand in lifting JT Bashall's Martinsyde outfit over a snow drift. Right: Solo riders following the leader who has forced his way ahead. Each man took his turn as pioneer."

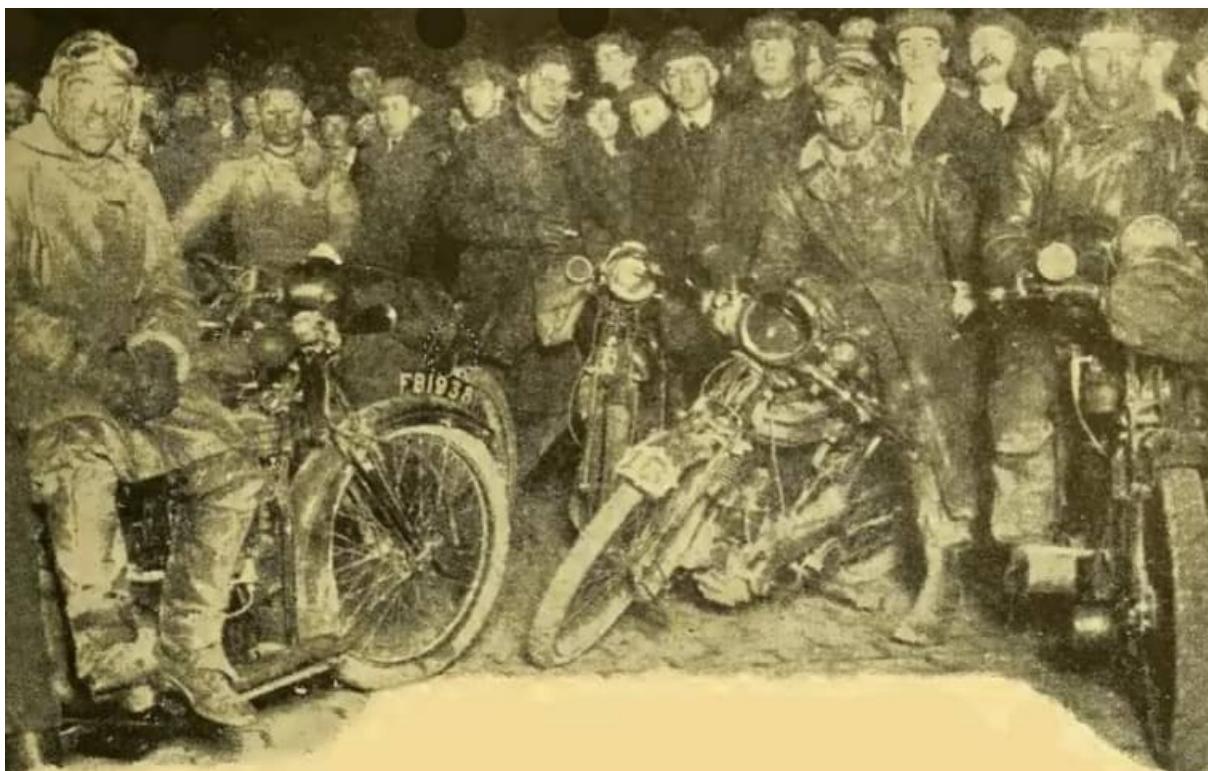
announced that all solo riders who reached the finish, and all drivers of passenger machines to check in either at Tetbury or Clevedon, would be awarded a special silver medal, to rank as a first-class award, and to be engraved with the words 'Western Centre Arctic Trial'. This decision was received with cheers by the assembled competitors, and certainly anyone who reached the finish, by whatever means, richly deserves his medal. Never before have we seen anything to equal the snowbound roads in the West of England, and it is many years since such a snowfall has occurred in these parts. Falls were frequent, and it was not uncommon to find an exhausted solo rider lying where he fell, after struggling through the drifts, while drivers of passenger machines took it in turns to lift, push, and man-handle each other's vehicles through masses of snow at least two feet deep in places...Even in the Scott trial we have never witnessed, nor experienced, so many falls per mile, yet the greater the difficulties the more the riders became obsessed with the idea of reaching Clevedon...Of 127 entrants, 43 solo men reached Clevedon and 39 sidecars, three-wheelers, and cars reached either Tetbury or Clevedon, thus qualifying for medals."



"AG Cocks (4½hp Beardmore-Precision sidecar) negotiating a tricky section near Brimscombe. Even Birdlip caused several to foot-slog, although the lower reaches (shown) were climbed with ease. Fortunately the snow on Knapp Hill did not make it quite impossible; FT Sibley (3½hp Rudge sidecar) is shown making good progress."

"THE BROKEN PROMISE. ONE OF the conditions of the ACU consenting to run the TT races in the Isle of Man this year was that an electric crane should be erected on Douglas quay. Now the IOM people say that such a crane cannot be erected; a story we have heard before, but where there's a will...!"

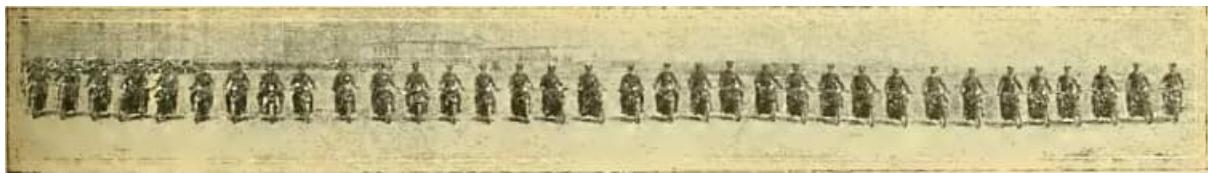
"A REPORT HAS JUST BEEN RECEIVED to the effect that the TT course is in an appalling condition in parts, the mountain road being badly cut up by the haulage of loads of stones by means of steam wagons. The matter has been brought to the notice of the Highway Board, who are giving it their immediate attention, and we understand a large staff has been engaged to put the roads into a thorough state of repair."



"Some idea of the strenuous nature of the recent 24 hours trial organised by the Bath and West of England Motor Club will be gathered from the illustration, which shows several tired and dishevelled finishers immediately after their long ride through the night from Land's End."

"IT CANNOT BE SAID THAT the average young motor cyclist has a commercial mind, but the exception proves the rule, and the following small advertisement makes interesting reading: 'Experienced motor cyclist in London, NW district, offers sporting ladies or gentlemen desiring exhilarating country rides the comfortable pillion seat on his special solo motor cycle; 6d per mile; distance no object; passenger weight limit nine stones.'"

"THE MOTOR CYCLE PENETRATES into the farthest corners of the earth, where its utility is appreciated as much as at home. Fourteen patrol men of the Honolulu police are now to be mounted on motor cycles. The United States of America was the pioneer country of motor cycle police. They were first adopted by the City of Chicago in 1910; there were 25 motor cycle police in 1913, and now 50 new Hendersons have been supplied to the force. This is irrespective of others allotted to various parks in the city."



"In Chicago 50 of the local motor police are mounted on four-cylinder Henderson machines 34 are shown above, making an imposing sight on the parade ground."

"WHAT A FINE FELLOW IS THE MOTOR CYCLIST who keeps his machine in the centre of one of our great industrial cities. How proudly can he hold up his head and look down upon the ordinary citizen tied down to the crowded train, the bumping bus, or the ever-stopping tram! Never was there such a rider. Grease holds no terrors for him. Necessity has made him skilful. No one would ride wet traffic-bethronged roads for choice, but the town-dweller must perforce traverse them on occasions to reach the country and again to reach home. See him thread his way through the densest traffic; spurting ahead through the narrowest opening, stern of face and yet happy, ready to check at a moment's notice, and wary lest aught meet him from the side street or crossing. He is not to be caught napping. Ever alert, he becomes immune from accident, since caution combined with skill prove to be his sure protection. Doubtless he envies his country friend, who has his own private motor house, where he can tinker o' nights and at week-ends, slip on to the great highway, and cover half of England before he sees a tramline. But he has not the joy of reaching the country after miles of traffic and rough roads. Once the unpleasantness is over the open road is all the more appreciated. We are all better suited to enjoy our pleasures if we do not attain them without a little trouble, and the breath of the sea is all the sweeter to him whose lungs mostly inhale a less pure atmosphere...There are few more interesting studies of the town motor cyclist than to see him issuing in his hundreds along the great arteries radiating from the industrial centres at the week-ends. Young men on their motor cycles or sidecar outfits with their sweethearts or wives, and the older men on their family buses. All with the same happy if tense look, bent on taking their meal on the wind-swept common, on the wooded hill-top, or by the silver sea, or perhaps on visiting some distant relative or friend. No nation has learned the joys of the motor cycle better than Great Britain, and it is curious indeed that other countries have not even commenced to realise its advantages..."

*Come, fill the tank with petrol, and fill the flask with tea,
Pack up the food in the old tin box and leave the town with me.
Soon we've left the tramlines, the air blows sweet and free,
And we'll sail o'er the hill to the field by the mill where the stream flows down to the sea.
And then in the shade of the ev'ning, back to our home we'll ride,
To sleep and dream of the swift-flowing stream and the joys of the country ride."*



"On the Portsmouth road. These photographs convey more eloquently than words why the motor cycle is such a popular vehicle with the city dweller, who, independent of train, tram or bus, is enabled to reach the open country with the minimum of effort."

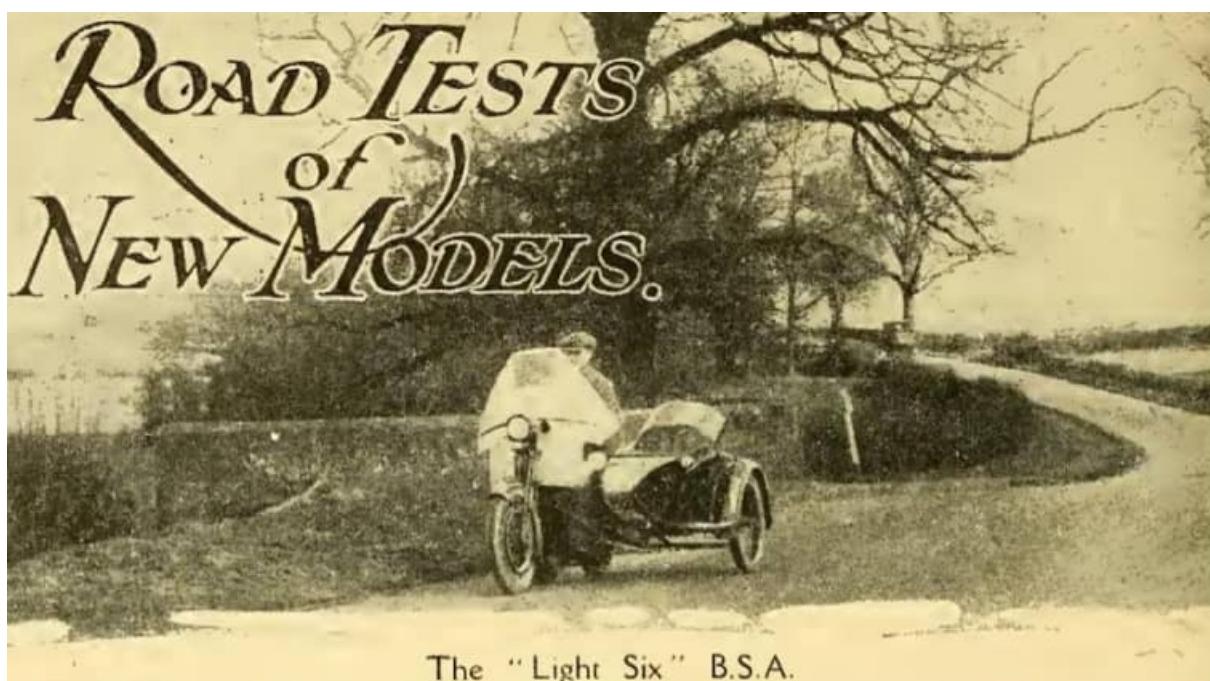
"ALTHOUGH THE FIRST OF ITS KIND to be attempted in Australia, the NSW 'Six Days' proved to be a great success. Of 38 entries received 24 faced the starter. It was very unfortunate that wet weather was experienced during the trial, as the rain was responsible for the failure of some of the competitors. On the whole, however, the trial proved the reliability of the motor cycle, and it should also create a greater interest in the sport."

"R BLACKBURN, ACKNOWLEDGED TO be South Africa's champion heavyweight rider, will very shortly be seen in Natal competitions with a new racing Harley-Davidson, which has just been unpacked. The new machine is of the eight-valve track type, and is certified as having accomplished the speed of 112mph in America."

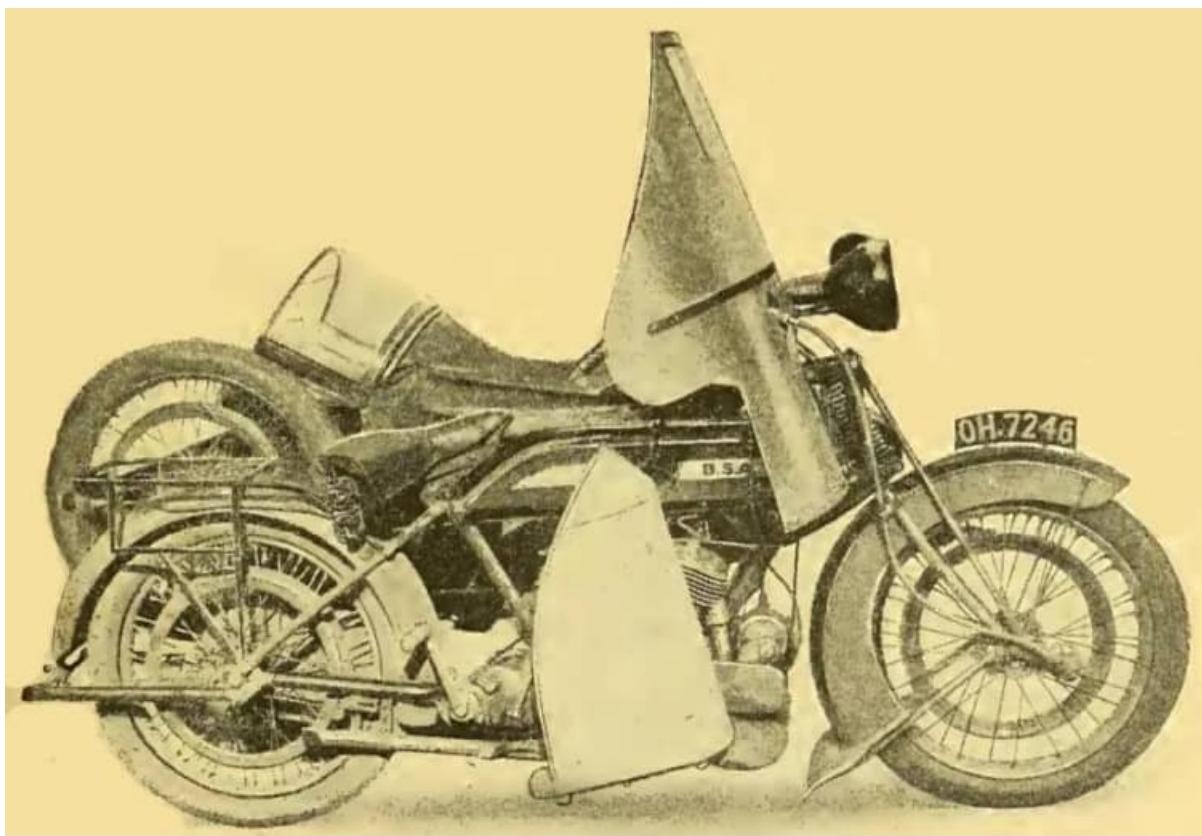
"THE EARLIEST RECOGNITION BY PARLIAMENT of the use of mechanically-propelled road vehicles was in 1831, when a Select Committee of the House of Commons was appointed to inquire into the tolls imposed on coaches and other vehicles propelled by steam or gas on common roads."



"The RAC has now introduced the sidecar as a means of enlarging the guide's field of usefulness. P&M outfits have been selected for the purpose."



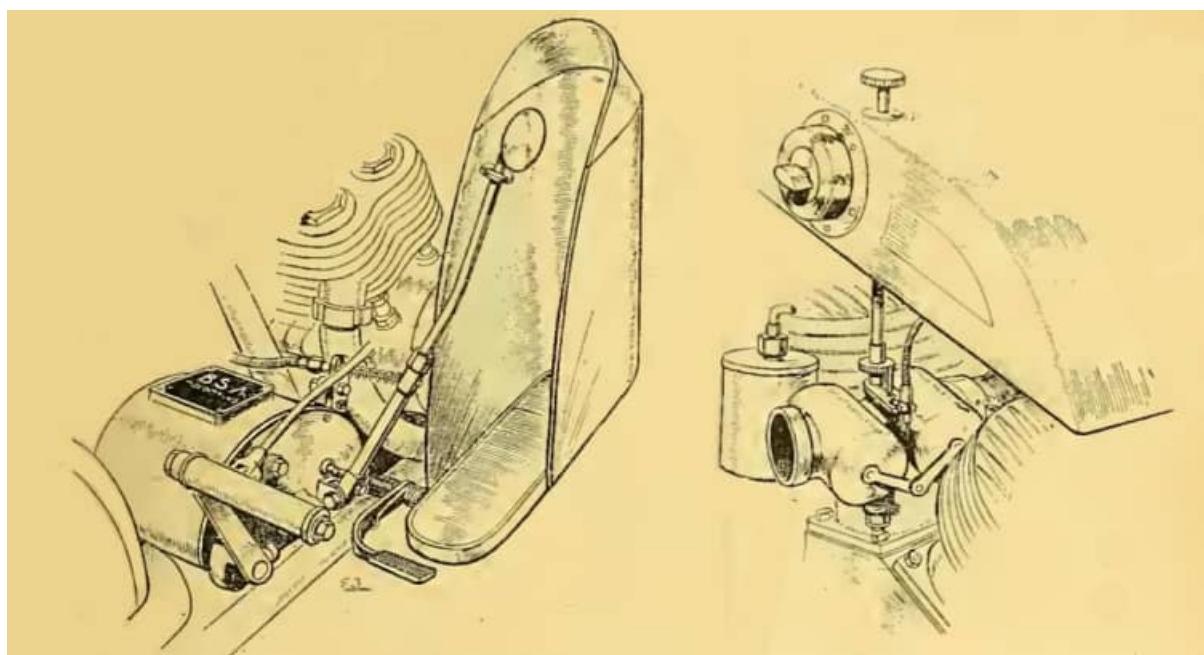
"SINCE THE INTRODUCTION OF THE 8HP BSA, the 6hp engine, which has already earned a good reputation, has been relegated to a lighter frame, and in its present form it is particularly well adapted to pull a light or medium weight sidecar. The machine in its standard form is remarkably well equipped with cast aluminium chain cases, comfortable footboards, and a spare detachable rear wheel may be supplied. In addition to all these fittings the actual model placed at our disposal Was fitted with Lucas Magdyno lighting set, a pair of most practical leg shields, and the large sheet aluminium windscreens which attracted so much attention at the last Motor Cycle Show at Olympia. As the screen is the most noticeable fitting, it is as well to deal with it first and to sum up the pros and cons. The writer, who usually chooses a more or less sporting solo mount for his own use, seated himself behind the protecting wings of the big screen with a feeling which almost amounted to prejudice, and a tendency to look round or over the shield had to be consciously restrained for the first few miles. After a short time, however, the folly of such a



"With its ample shields the BSA may be ridden for long distances in bad weather without special clothing. The leg shields can be instantly hinged away to provide access to the engine."

procedure became obvious, for the view of the road obtainable through the adjustable celluloid window is ample for most driving purposes. Just to begin with, the window was kept open for about six inches, but a cold head wind encouraged a trial with the window totally closed. Having once discovered the advantages of full protection, the feeling of security and comfort steadily increased, and after driving through an adverse hailstorm in the dark the conquest was complete. There is no doubt whatever that an adequate shield would be a blessing to hundreds of motor cyclists who ride daily through the winter, and the BSA Co are certainly on the right lines with their somewhat daring introduction. Concerning the head resistance, it would appear that this is but slight, for although the machine was ridden for nearly three hundred miles both with and without the shield, it was in position when the highest speed was actually

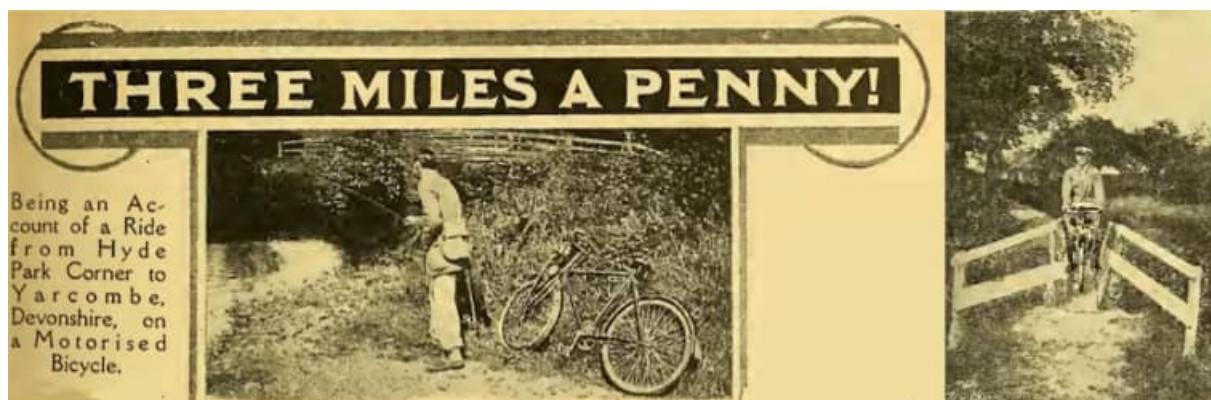
accomplished. Few experimental devices are without disadvantages in their early forms, but the disadvantages of the BSA shield are not of major importance, neither are they by any means insuperable. Firstly, on rough roads the metal shield is apt to be noisy in itself; secondly, it intensifies any mechanical noises of the motor cycle; and thirdly, a trip over dry roads brought to light the fact that a certain amount of dust was sucked up behind the screen and was apt to get in the rider's eyes. Now as to the 6hp BSA, the engine is flexible and free from any serious periodic vibration. The flexibility and economy are materially increased by a simple jet control, conveniently placed on the top of the tank. This fitting is likely to become standard in the future, and it is certainly most useful. In addition to the normal handle-bar control we found an experimental knee clutch operation very convenient; in fact, the hand control was seldom used; the clutch itself is sweet in action. Gears are easily changed, but a more decided stop in the middle gear position would be an advantage, and a slight tendency to drag made the neutral position a little, difficult to find. On the whole, the engine was quiet; certainly much quieter than a 1921 model which was tested on a previous occasion. Mechanical lubrication is a very strong point, for not only does the BSA oscillating pump relieve the rider of all worry, but, in conjunction with the roller and ball



"In addition to the handle-bar control of the clutch, a lever extends upwards into the leg shield in such a position that it can be operated by knee pressure. (Right) A very useful and handy device is the new jet control, which passes through the tank and can be operated whilst driving."

bearing engine, it is remarkably economical. The rear brake is admirable, and the chain transmission smooth at all but low speeds on top gear, and we found the riding position, combined with a Terry saddle, ideal for sidecar work. During our road experience, which included much of the Colmore Cup Trial route, the machine performed steadily throughout; it is capable of a good turn of speed, and appears to revel in long runs on generous throttle openings. Hill climbing is well up to all reasonable requirements, and the engine remains clean externally even after a long, fast trip. Cleanliness is certainly a feature of the machine, and the mudguards are excellent. With the leg shields in position we found no need for leggings even under the worst road conditions, and the screen protects the rider so admirably that there is no necessity for any special apparel other than a rainproof coat. It should be explained that the leg shields are held in position by clips, and can be swung away instantly in order to get at the

engine. The sporting model sidecar is comfortable, and the step is of great assistance to the passenger; the seat, however, is a fraction too far back."

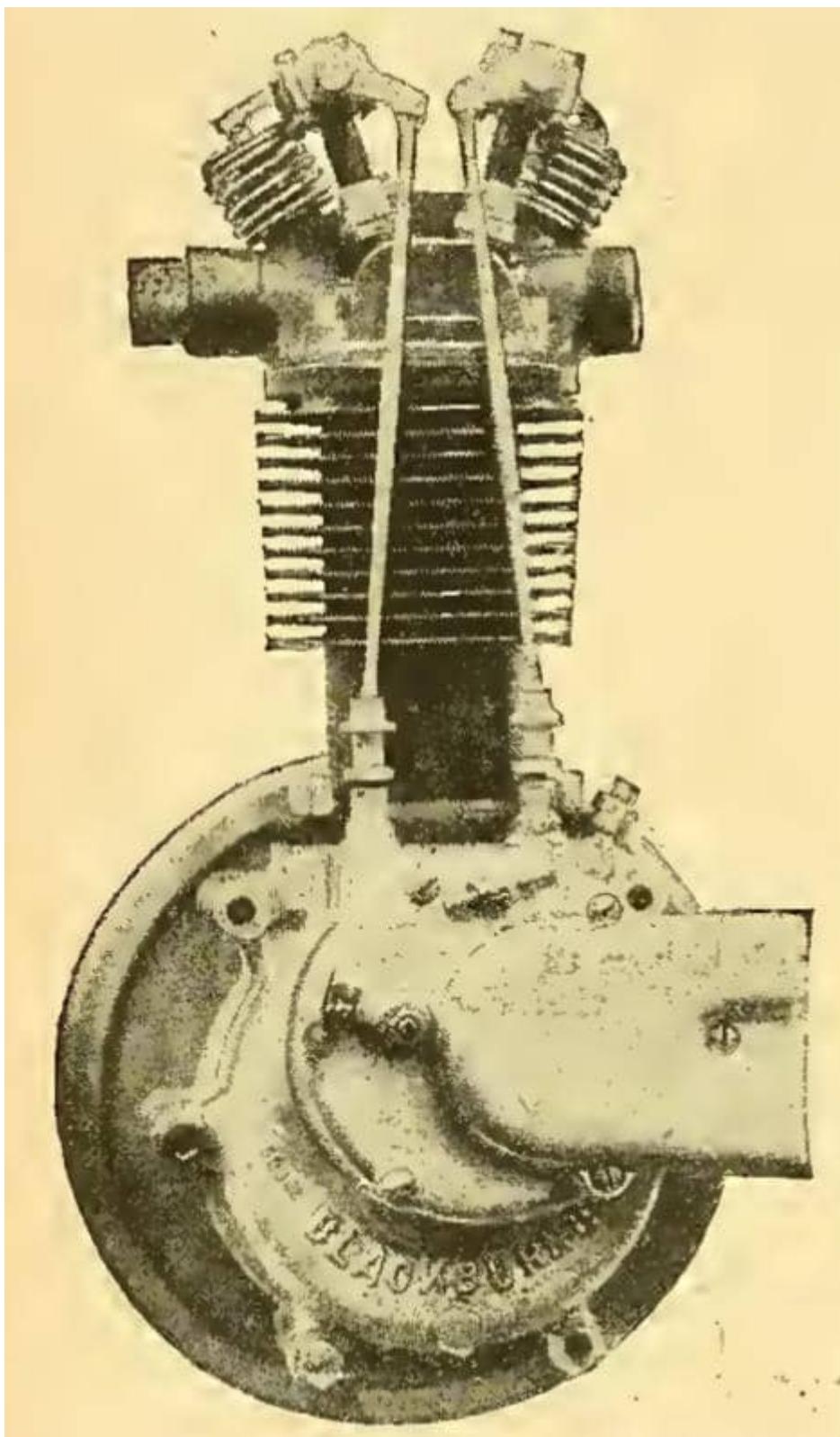


"A cast by the road-side, with the Cyclotacteur conveniently near. (Right) In by-lanes and when crossing narrow bridges the machine was found very handy."

"I WILL ADMIT THAT I WAS RATHER SCEPTICAL when a friend recommended me to purchase a motor attachment for my pedal cycle. I wished to journey to Devonshire, and I was doubtful if the 'Cyclotacteur' would negotiate all reasonable hills. Inspired by a spirit of adventure, I made the plunge—twenty guineas and my faithful old pedal cycle became a motor vehicle. On a Thursday I wired my friends that I was due to arrive at Stotehayes, near Yarcombe—a matter of 150 miles—on Friday. 'What an optimist!' I said to myself. Within a few minutes of mounting my bicycle—if the truth be known I was a bit nervous—I found I was quite au fait with the simplest of controls and was sailing along at a good speed and with ease, leaving Edgware Road at 11.30am. Having safely negotiated all the tramlines, I found myself on the Staines Road. What a wonderful run it is through Virginia Water! A great wide road with a good surface, firs on either side, and a pleasant little surprise in a picturesque waterfall on the right-hand side of the road. Knowing how easy it was to start up my little machine, I had no compunction in pulling up, propping it against the side of the road and taking in the beauties that existed on all sides. Off again on a splendid spin to Sunningdale, I found the level crossing gates closed, and so decided to lunch at the Sunningdale Hotel. After a three-quarters of an hour's rest I continued my journey, and passed through Bagshot and Farnboro', where I took in some petrol: the little tank holds nearly a quart, which is sufficient for about 50 miles. I had tea at Andover after travelling 63 miles. The distance between Andover and Salisbury—18 miles—was covered in 59min. It is a wonderful stretch through open country on a switchback road, mounting all the time, the downs stretching out for miles on either side, with splendid views. I stopped at Salisbury for refreshment, and proceeded to Wilton, where I decided to stay for the night. This is a charming old-world village, and distant from London 88 miles. After a dinner composed of wonderful Wiltshire bacon and tomatoes, I went to the local inn, and there heard the local gossip discussed over pots of cider, and so to bed—as Pepys would say. From Wilton next morning at 10.30 I journeyed through Shaftesbury, where I stopped for an hour, then down into Sherborne. The country was getting more hilly every mile, but still my machine 'carried on' in game fashion. I reached Sherborne, lunched at the Half Moon, and had a long rest, visited the Digby Arms and took in petrol, and so into Yeovil, famous for its leather tanning and glove making. It is a beautiful run from there into Uminster and on to Chard. Here I stopped for tea and started off on the long hill that leads from Chard into Yarcombe. Devonshire at last! My destination was a fishing cottage on a farm about one and a half miles from Yarcombe and down a country lane. At the bottom of the lane is a ford across the River Yar, and a small wooden bridge only 1ft in

width. It was here I found an advantage of my machine, being able to get it across the bridge. A larger mount might have necessitated a detour of some six miles to reach my destination. I took the Cyclotacteur over the bridge, across some fields, and arrived, having covered 150 miles on one and one-third gallons of petrol and a shillingsworth of oil. Later, as an experiment, I rode through the ford without detriment to the engine, which is placed above the front wheel. I do not think I remember having enjoyed a trip more than this one. I carried my luggage on a carrier at the rear, the total weight, including myself, being about 200lb.

CHCN



"As will be seen, the new lightweight record-breaking Blackburne engine follows closely the lines of the 350cc type bearing the same name."

HAVING WON THE ISDT in 1921 Switzerland hosted the trial for the second year running, and won it for the second year running. There were 42 entrants, of who 33 completed the course, winning five Special Gold Medals, 24 gold medals and four silver medals. Results. International Trophy. 1, Switzerland: J Morand (742cc Condor), 1000 marks; 2, E Gex (994cc Motosacoche sc),

998; A Robert (496cc Motosacoche), 992. 2, Britain: GS Davison (249cc Levis), 1,000; FW Giles (800cc AJS sc), 996; A Bennett (492cc Sunbeam) 993. 3, Sweden: G Goethe (494cc Husqvarna), 990; B Malmberg (494cc Husqvarna), 983; P Svanbeck (995cc Husqvarna sc). Trade team: 1, AJS (Giles, Williams, Harris), 2,994; 2, Harley Davidson (Rothenbach, Sutter, Leu), 2,993. 3, Motosacoche (Souvrain, Franconi, Pellissier), 2,975. Club team: 1, Zurich MCC (Dinkel, Rothenbach, Leu) 2,995; 2, Worcester & DMCC (Williams, Giles, Harris) 2,994. 3, Motosacoche Club (Souvairan, Franconi. Pelissier). Best performance of a Swiss machine: H Dinkel (248cc Condor). Flying kilometre speed trial. 250cc: GS Davison (249cc Levis) 44.56mph; 350cc: Eric Williams (348cc AJS) 52.08mph); 496cc: F Franconi (496cc Motosacoche) 58.86mph; 750cc: J Morans (742cc Condor) 55.37mph; unlimited: O Sutter (989cc Harley-Davidson) 66.8mph; sidecars: A Rothenbach (989cc Harley-Davidson sc), 54.03mph.



The Swedish team took third place in the ISDT. L-R: G Goethe (494cc Husqvarna), P Svanbeck (995cc Husqvarna sc) and B Malmberg (494cc Husqvarna).

"MERE MALE READERS MAY BE ALARMED to hear that one of the only three clean ascents at a first attempt of a freak hill included in the Liverpool MC's opening run was made by a lady motor cyclist, Miss Cottle, whose driving skill was, incidentally, one of the outstanding features of two of last year's open trials in North Wales. There were 92 entrants."

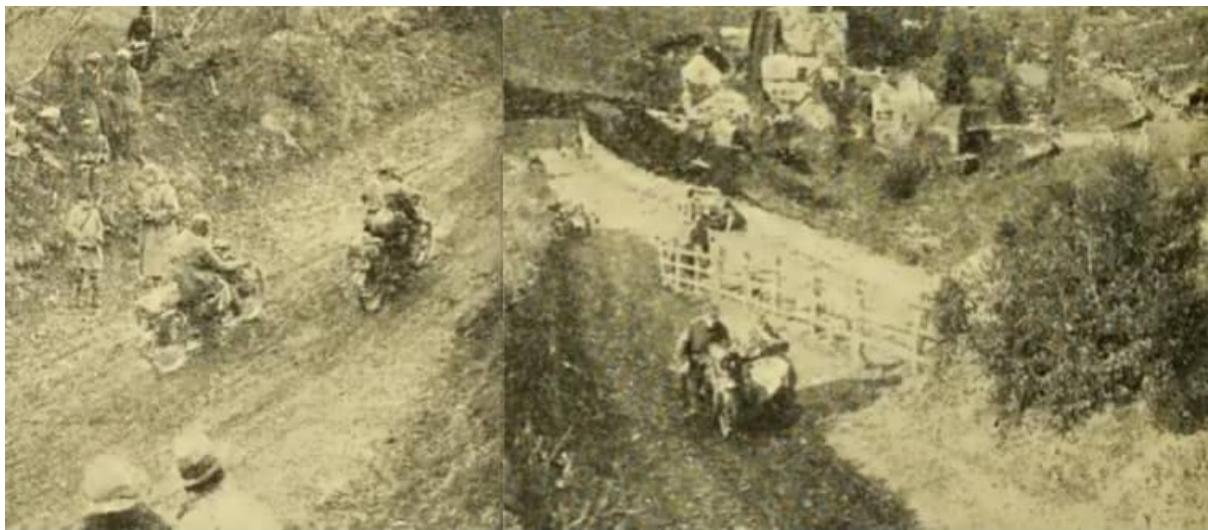
"NEWS THAT THE 3½HP GNOME et Rhône motor cycle is eventually to be placed on the British market is interesting, in view of the fact that one of these machines completed the 2,334 miles the Tour de France without the loss of a single mark, tieing with the AB which hails from the same factory. The designer of the Gnome et Rhône is an Englishman, Mr K Bartlett."

"EARLY LAST WEEK WD MARCHANT, riding a Sheffield-Henderson with a new 250cc ohv Blackburne engine, gained the British mile record at a speed of 72.89mph, and the kilometre at 71.96mph. He then went for the inter-national (mean speed) records, covering the mile at the rate (average of two runs) of 71.42mph, and the kilometre at 71.88mph—truly wonderful speeds for so small an engine. On the following Thursday the same rider and machine created new

records for the hour and the 50 miles, his speeds being respectively 58.89mph and 58.99mph, over 3mph increase on the previous bests."



"GALES AND GRADIENT PROVED UNCOMMONLY difficult obstacles in this year's London—Land's End Trial, the record-breaking Eastertide event of the MCC to decide the soloist and sidecar driver to hold the President's and Captain's Cups respectively for another 12 months. Not only was Beggar's Roost included in the stiffened edition of last year's route as a climax to a very possibly almost impassable Lynton. but the 'O i/c Gales' apparently went holiday-making, leaving his south-west army to wage war against the luckless Land's End men. Rain provided the finishing touch—stinging rain which was almost indistinguishable from hail...Porlock may always be relied on to relieve one or two of their gold medals; this year it was again the deciding factor for the trophy awards—nearest to 20mph up the first mile winning—and in consequence anxiety bred failure in several cases. As a hill it is the least difficult of the three included in the trial. Porlock's two hairpin turns of terrifying steepness formed the first real 'stumbling block' in the course of the trial. On Saturday the surface of soft red clay and loose sharp stones was adversely affected by the previous heavy rains, and many of the competitors failed on, or just after, the first bend...Probably because of their low bottom gears many of the lightweight riders took the first turn in splendid style, notably SG Wooldridge (349cc AJS) and ARH Stewart (348cc Raleigh). FE Salter (496 Zenith-Bradshaw) had rather bad skid, and fell just before the turn...Much excitement was caused when WH Julian (996cc Matchless sc) took the turn too fast and skidded across the road. In the haste to get away again he baulked two other Matchless sidecars (G Nott and DS Parsons), which, however, just managed to scramble through the restricted road passage...WP Brandon (550cc Triumph sc) stopped right on the bend and caused an exciting obstruction, involving three other machines. GR Claridge (550cc Triumph sc) made an outstanding climb...The road over Exmoor and down Countisbury hill to Lynmouth had only been opened on the previous week-end after the recent heavy snowstorms in the neighbourhood, but its general condition was by no means worse than usual; lingering remains of once 6ft-deep snowdrifts indicated what might have been had Easter been a little earlier this year. Most of the riders used their engines as brakes on Countisbury, and oiled plugs were not uncommon at Lynmouth...When the surface is out of condition there are three bad spots on Lynton Hill. The first is at the first corner, where it is well-nigh fatal to cut in on the inside; the second is a steep, loose patch about 100 yards higher, and the worst is a stiff pull about 200 yards beyond. Recent heavy weather on this occasion rendered the hill at its worst...Praise must be, and was on the spot, awarded to the veteran FW Applebee (211cc Levis), who with his engine misfiring slightly, skidded on the corner, used his feet to recover, and got away again very well. CH Mocatta (349cc AJS) narrowly



"Two solo riders making light of Beggar's Roost—HA Davies (498cc Ariel), leading, and CH Mocatta (349cc AJS). (Right) The commencement of Beggar's Roost and the main road, on the right, by which competitors rejoined the route after completing the climb. SH Farley (1170cc Henderson sidecar) is the rider in the foreground."

missed being baulked by a cart. BN Taylor (349cc Hagg Tandem) arrived very late, took the corner too fine, stopped, and eventually went up running beside his machine, which was not an easy task...Because of the stops and baulks, particularly on the upper portion of the hill, it was almost impossible to say who did, or might have done, well, and the promoters of the trial will have some difficulty in sorting things out to universal satisfaction. It was noticeable that, despite these troubles, the competitors showed the utmost good humour, whilst the marshals did their best to keep track of things and to help those who needed it. The cause of the trouble, of course, was the unutterably loose surface made worse by recent showers. The beginning of one turmoil was the failure of AJ Agg (799cc AJS sc). He baulked A Greenwood (976cc Brough-Superior sc), who passed it on to WH Bashall (678cc Martinsyde sc), and then JT Bashall (678cc Martinsyde sc), G Baxter (678cc Martinsyde sc), BE Belfield (989cc Harley-Davidson sc), TH Weaver (796cc Sirrah sc), and AH Carnet (532cc Scott-Squirrel sc) all became involved. This was typical of the day...Thence followed the culminating ascent of the Devonshire Hills, namely, Beggar's Roost, on the edge of the village of Barbrook Mill...the steepest section is 1 in 3.64, and for the whole three-quarter mile length of the hill the gradient averages about 1 in 7. Spectators gathered in the early hours—the first man was due at 7.48am—some keen enthusiasts being content to munch sandwiches in lieu of breakfast, which some of the Lynmouth district hotels fought shy of providing so early. It was fine with a strong wind blowing up the hill FA Longman (Ariel), last year's Jarrott Cup winner, led the way in company with E Pond (550cc Triumph) and PL Wills (499cc Rudge), followed by an official Morris car piloted by LA Baddeley...EW Spencer's 497cc Douglas toyed with the precipitous gradient, whilst OS Bridoutt (499cc Dunelt) slewed around in the road and had to touch with his feet, but kept going, nevertheless...JA Newman (497cc Douglas) was good, but his right eye was blackened, apparently through a fall. Then a roar, and two riders in close company charged round the bend at speed—they were G Brough and S Ratcliffe (976cc Brough Superior)...Young's 292cc OK Junior raised a laugh among the crowd by steering straight for a spectator sitting on the bank, who promptly fell on his back with his legs in the air. Then the sidecars started in earnest, WA Fell-Smith (976cc Brough-Superior sc) forming the vanguard, and incidentally clearing the over-zealous spectators who meandered aimlessly in the road while natural banks awaited them. Clifford Wilson (653cc Quadrant sc) stopped, but was able to see Pidgeon on a similar outfit go up well. More sidecars followed,

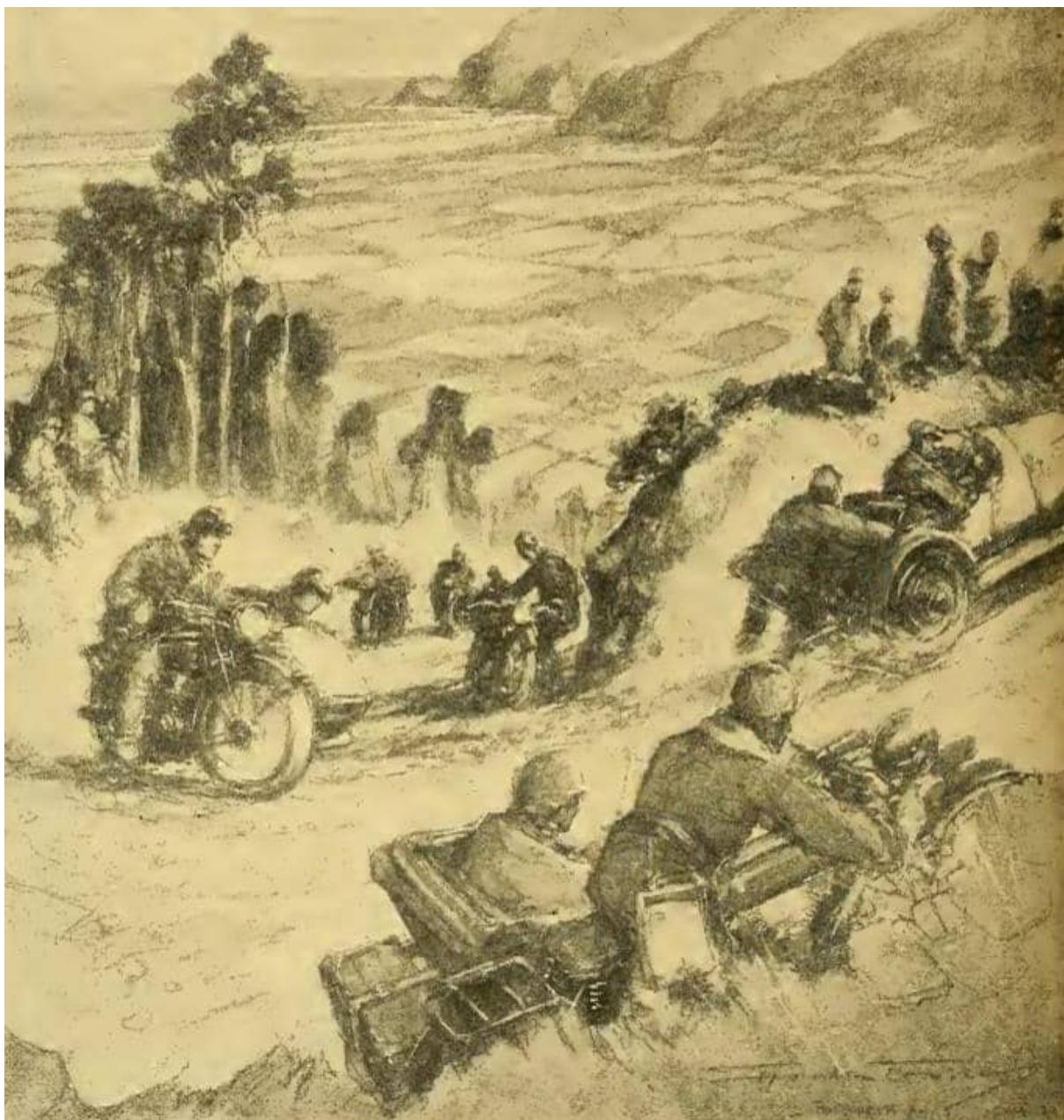
Ross and Boxer among a remarkably big Matchless representation, doing well. Watson (994cc Ariel sc) got over the critical 1 in 3.64 by vigorous bumping on the saddle...'Hard luck!' exclaimed the onlookers as Harris (550cc Triumph sc) came to a standstill after manfully breasting the steepest bit; Glendinning's 998cc Rex outfit stopped at precisely the same spot. Tait (980cc Brough-Superior sc) stopped with his driving-wheel churning up the stones. Davidson's 596cc Indian Scout outfit repeated the performance, and he burnt out the clutch in attempting a restart. White (996cc Sunbeam sc) stopped, and then perfect chaos prevailed as a bunch of sidecarists in close company attempted the hill. Some were baulked, and the officials took their depositions in the midst of the climb instead of clearing the course for the next men. Mackenzie (745cc Humber sc), Guiver (996cc Matchless sc), Cocks (598cc Beardmore-Precision sc), Attwood (548cc Hawker sc), were all at one time at a standstill within a space of 20 yards. The 100mph exponent CG Pullin (749cc Douglas sc) disappointed everybody by stopping; Hann (980cc New Imperial sc) also stopped, as well as Nelson (550cc Triumph sc)...White (800cc AJS sc) stopped, due to wheelspin; Nott (Matchless sc) was slowly overhauled by Parsons, who actually struck Nott's stand, but managed to keep going; Jones (996 Matchless sc) stopped low down the hill, but Wood (633cc Norton sc) got over the steep pitch and then unaccountably failed. The sidecar men found Beggar's Roost a tough proposition, and another bunch of machines were strewn about the hill at this point awaiting assistance from willing helpers...There



"Well round the acute bend at the foot of Lynton, J Wallis (688cc Coventry-Victor sidecar) opens out for a successful climb. (Right) At one period something approaching chaos reigned on Beggar's Roost. FW Giles 800cc AJS sidecar), in the left foreground, is making a brilliant get-away after a bad baulk."

was surely never such a scene; anxious spectators yelled themselves hoarse to clear the road of a Harley, two Matchless, and an Enfield; excited sidecar passengers joined in, and pandemonium prevailed...Hoult (993cc Matchless sc) relieved the monotony, sending a shower of gravel from his driving wheel among the spectators, now scattered all over the roadway...Strong (989cc Harley-Davidson sc), a plucky rider minus legs, who had to be assisted while a passing shower cooled the willing helpers, and Gripper (Morgan), who made an excellent ascent...On via Simonsbath, South Molton, and Umberleigh Bridge to another check at Great Torrington the road was often exceedingly tortuous, and in the neighbourhood of Umberleigh Bridge there were hills of considerable severity. Added to this the gale seemed ever-increasing in intensity...IP Brettell on the 370cc Connaught outfit was noticed gamely fighting a losing battle with the head wind. A little further on HW Harrington's 349cc Douglas with the

draught-board tank was overtaken in trouble from the same cause, and indeed there were few of the solo lightweights or passenger outfits which did not find difficulty in keeping to schedule over this section. Driving, too, was most unpleasant; it was almost impossible to open more than one eye at a time; AG Cocks (598cc Beardmore sc) left the road entirely at one stage and went ploughing over the moor to the considerable detriment of his front fork, although on the whole the Beardmore stood it remarkably well. All the way to the Launceston lunch stop and for the first hundred riders or so right into Bodmin the blinding rain continued, and it was no uncommon sight to meet people returning in disgust; it was however, quite impossible to decipher their numbers as they sped homewards. FW Becker (688cc McKechnie sc) sustained the last straw in this section in the shape of a puncture in the sidecar tyre...Land's End was reached by the vanguard of the surviving soloists shortly after four o'clock, but it was well past lighting-up time before the last competitors finished the memorable 312 miles ride. In winning the President's Cup, presented by JK Starley, Esq, a remarkable performance was made by AG Wall (398cc ABC). In the official programme Wall was down to ride a Velocette, but he elected change his mount at the last minute and was allowed to ride the ABC, a machine with which he was quite unfamiliar. He carried no watch, and broke his speedometer, yet nevertheless rode dead to schedule throughout the run. In the solo class there were 121 entries, nine of them proving to be non-starters; in addition to the President's Cup winner, 43 won gold medals, 40 were awarded silver medals and 28 retired. Of the 99 sidecar entrants 92 started; of these 17 gained gold medals, 37 silver medals and 36 retired. The cup presented by the captain of the club, Mr WH Wells, was won by FJ Ellis (993cc Matchless sc). One of the sidecar drivers, WH Bashall (678cc Martinsyde), finished the journey, but arrived too late at the finish to gain an award."



"An impression of the Porlock climb at the second hair-pin. By F Gordon Crosby."

London-Land's End and the Ladies.

By MAB. LOCKWOOD TATHAM.

"AS I DROVE UP TO SLOUGH at about 10pm on Good Friday the scene which met my eyes fired my imagination with the idea that I had stepped into another world—a world peopled by strange creatures in gnome-like head gear, with big glass eyes, a wild manner, and a strange language in which they addressed their various weird chariots. The wild stormy night, pouring rain, and fitful moon lent colour to the fancy, and the cold, inadequate light of arc lamps only seemed to show blacker shadows here and there. Coming back to earth I proceeded to examine with interest the 322 entrants for the trial. The excitement was intense, and both building and yard hummed like a hive. Spasmodic pops and bangs and roars came from every quarter, tyres were violently

pumped up, nuts and bolts tightened here and there, and refreshments tucked away in handy places...An outstanding feature was a hood on the Matchless sidecar occupied by Mrs Collier. In this case the luggage was carried on the back, and the waterproof hood came right over it and buttoned on to the windscreen. A side curtain had its place on the engine side, and the whole thing looked wonderfully neat and comfortable. The only drawback seemed to be that the passenger could not speak to the driver with the hood up. An extra cushion and lots of chocolates completed this workmanlike outfit...Nearly all the machines carried spare tyres with Parsons chains for the negotiation of Porlock Hill the latter as usual the source of much anxiety—and Ingersoll watches predominated for timing. Most of the outfits carried three or even four watches, but I admired the faith of one Harley-Davidson driver—he carried one Ingersoll Midget...As I strolled along on my tour of inspection I saw a familiar figure on a Levis without whom no trial is really complete. It was 'Pa' Appleby—cheery, weather-beaten, and ready for the road in his well-known sou'-wester turned back off his face. A black furry cat in a green ribbon ornamented the handle-bars.'Pa' announced that he wasn't going to knock himself up this run, because of the coming TT I have seldom met so great an enthusiast...One lady was particularly neat and workmanlike in a brown leather coat, gauntlet gloves, gaiters, and a beaver-lined driving helmet. I should think it would be almost impossible to get cold in such a costume. Another wore a Burberry over her leather jacket. Many wore just ordinary shoes and stockings, trusting to a travelling rug for warmth round the ankles. I only saw one lady with a muff—a most sensible thing to carry, as it is so much easier to slip one's hands out of than gloves, and is much warmer. Woolly scarves or mufflers were de rigueur round the neck, no furs at all being worn except in the form of a fur collar on a cloth or leather coat. Woollen, rather than skin, gloves also seemed popular. Although the drivers were all chivalrously concerned about their fair passengers' comfort, and anxious for them to rest or even sleep part of the time, I was glad to note the keen interest taken by the ladies in the active part of the run. Few intended to sleep at all during the night, and all were more or less responsible for the timing—not such an easy job as it sounds. Methods of carrying the route card were many and various—it was clipped in some cases to the sidecar windscreen, some hung from the driver's belt, some loose, but nearly all covered in celluloid and framed in leather. One driver had his strapped to his left arm—rather exposed, I thought, in the event of rain. I think some of the ladies would like to have been driving their own machines, but, of course, such a thing is not yet permitted, though the reason is not obvious on trials of this description. After all, there is none of the danger of racing, and even ordinary speeding entails disqualification."



"Fashions for the lady motor cyclist. The top left and right drawings show two styles of sleeveless leather waistcoats, one in yellow kid trimmed with brown suede and fastened with a belt and possessing pockets, the other in washable white doeskin without any trimming and fastened at the waist at both sides with one button. The centre sketch is one of the short fur sports coats that are being worn. For motor cycling grey lambswool is the most suitable material. Below are two hats suitable for either rider or passenger. (Left.) A close fitting turban cap of scarlet kid embroidered with oxidised thread and finished with a tassel. (Right). A lightweight hat of green oiled silk with a front brim that affords protection from the glare of the sun. The trimming is a conventional design stencilled on the crown and a strap is fastened under the chin."

"THE RICHMOND MEET—HEAVY AND CONTINUOUS rain spoils popular northern Good Friday rendezvous. Owing to the early date at which this popular meeting of Northern motor cyclists is held, a variety of weather conditions has from time to time attended it, but never previously has the day been so completely spoilt by unbroken downpour as on Friday last. Over 2,000 motor cyclists were expected, and provision made for their reception, but nothing approaching this number materialised. At six on Good Friday morning the officials were out, marking off the square for the various clubs. An hour or so later the rain began, and continued to fall without interlude to the end of the day, entirely obliterating their efforts. The best representation of members was put up by the Middlesbrough Club, followed by Stockton. The Mayor, in his speech preceding the donation of the prizes by the Mayoress, specially commented upon the manner in which the Middlesbrough Club had always upheld the event, and he thought that it was largely due to them that the popularity of the meet has grown so considerably. He extended

a cordial invitation to the promoters of the meet to make it in future a three days' affair, extending over to Easter Monday. The ACU Cup was won by the Berwick club, which unquestionably deserved it, considering the weather conditions and the distance the men had travelled. Scarborough and North London were highly commended. In the smartest lady's machine, a prize given by Councillor Parnley was won by Mrs Linfoot, of Stockton (2½hp Levis). A second award went to Miss EC Simkins (2½hp Clyno), of Darlington. The prize offered by Mr WR Haggas for the most ingenious gadget was won by Harold Walton, of Stockton, whose acetylene headlamp was fitted with an auxiliary electric bulb so that either gas or electricity could be used. The Motor Cycle award for the best protected sidecar outfit went to M Brass, whose 8hp Brough Superior outfit was fitted with ingenious and practical shields to protect the rider. In the award for the lady who had ridden the greatest distance to the meet honours were equal between Miss Bellerby and Miss Procter, both of the Middlesbrough Club (mounted on Harley-Davidson and Triumph sidecars respectively). Miss Bellerby drew the handsome silver tray presented by the Mayor of Richmond, and a further award is to be made to Miss Procter. Mr Longfield's prize for the best kept solo machine was won by A Hindson of Darlington (2¾hp Blackburne), and that for the best kept sidecar by A Blackburne (Bat)...At the request of the Ilkley Club officials the Mayor concluded the meeting by presenting Harold Sellers with a handsome silver card tray as a recognition from the members of the Ilkley Club for his able services as secretary, and for his good influence generally in motor cycle circles in the North of England."

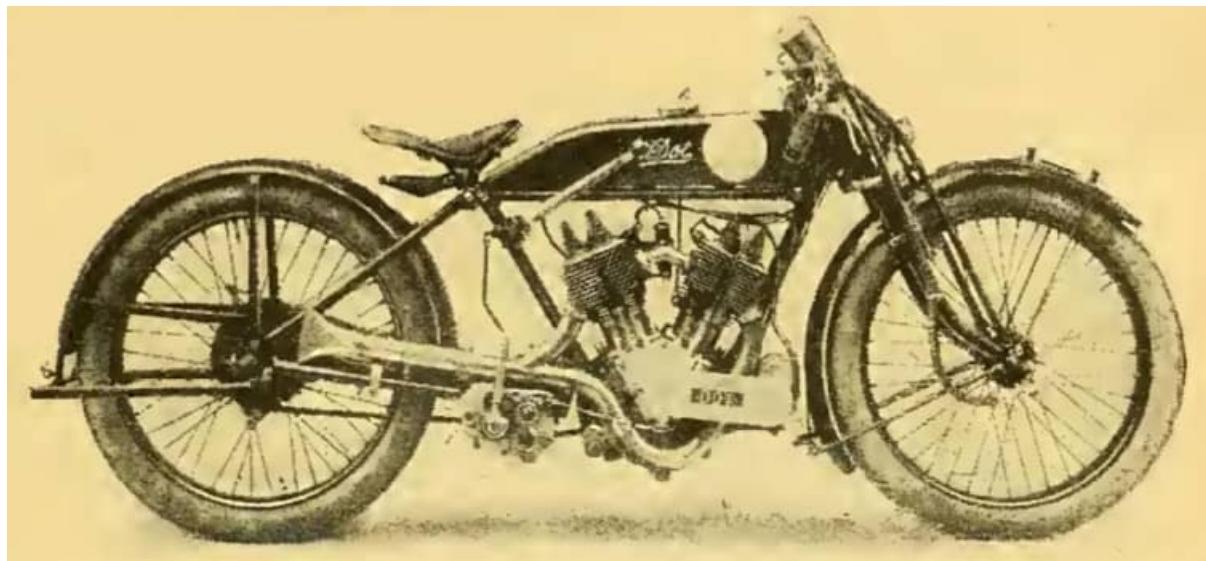


"Owing to the rain, the ancient square at Richmond (Yorks) did not present its usual Good Friday spectacle of hundreds of machines; the majority sought shelter. Youngest motor cyclist at the meet: Master Blackburn (age 14), of Middlesbrough—his great-grandfather (age 89) also rides a two-stroke, and was only prevented from attending by the heavy rain-storm. Mrs Linfoot, of Middlesbrough, who secured the lady's prize for the smartest lady's machine. Her mount is a 2½hp Levis."

"SHEFFIELD MAGISTRATES RELUCTANTLY fined eight offenders £2 each for using motor cycles which were too noisy. In several of the cases it was evident that the noisy machines were used as sold by the manufacturers, and the presiding magistrate said that he was surprised that reputable firms sold machines in such a condition. The defendants were advised by the magistrates' clerk to sue the firms selling the machines for damages."

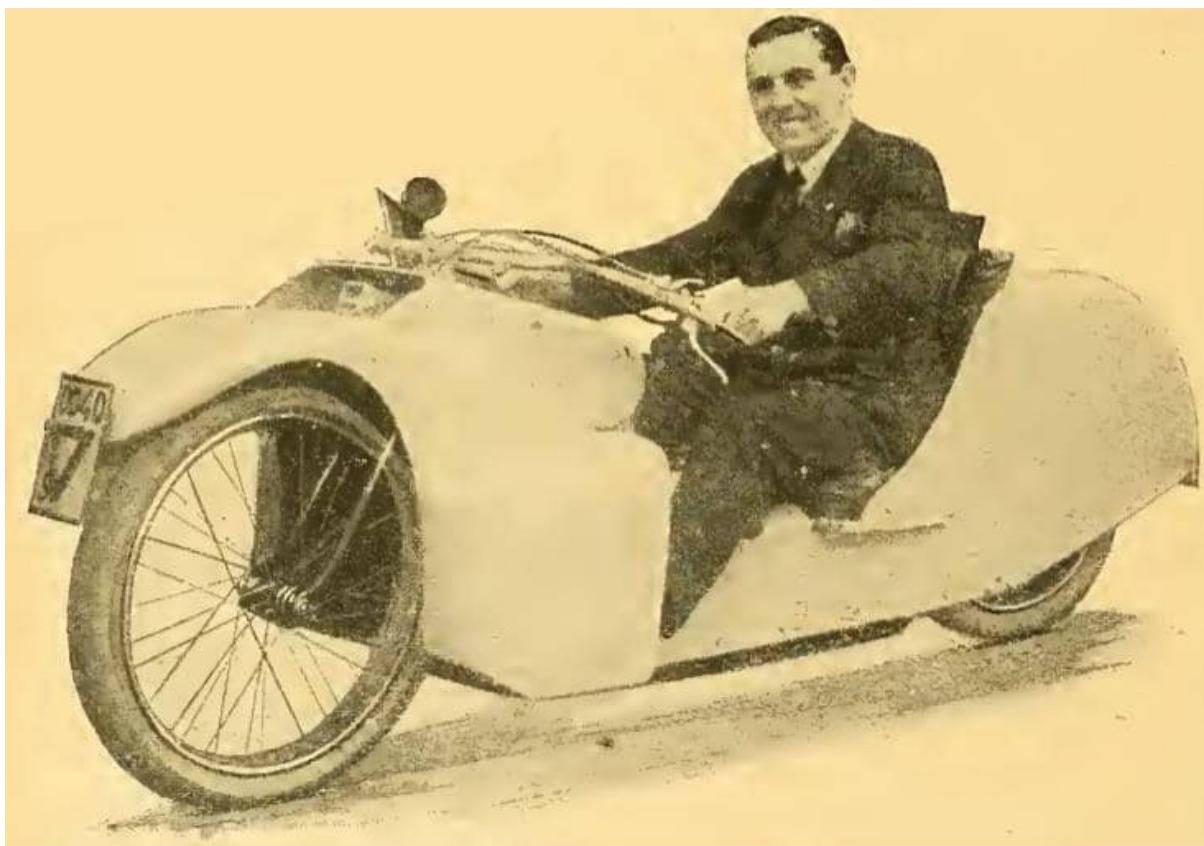
"ONE OF THE MOST ATTRACTIVE-looking big twin sports models that we have yet seen is now being placed upon the market by Dot Motors of Hulme, Manchester. Fitted with the latest side-by-side valve 8hp JAP engine, three-speed Sturmey-Archer gear and all-chain drive, it is

eminently suited for fast solo work. A saddle tank and a specially constructed frame with duplex tank rails are distinctive features. Saxon forks, Amac carburetter and IC magneto form part of the specification, and sidecar lugs are incorporated in the frame."



"A sporting twin of big capacity: the 8hp Dot."

"CAR COMFORT ON TWO WHEELS" has become so trite a phrase that we hesitate even to use it, but nevertheless it conveys more adequately than otherwise possible the aim of Alexander Motors in producing the vehicle illustrated. Incidentally, the designer, Mr AH Alexander, is the well-known Scottish competition rider. At the outset, it may be stated that, clothed in an ordinary lounge suit without overalls, the driver in the photograph gained a gold medal in a recent muddy trial organised by the Edinburgh Club. Cleanliness is, however, only one of the advantages claimed; absence of skidding is another, for the centre of gravity is low; and cheapness of production should eventually be a third, for the only 'finish' consists of enamelling the outer shell, the other parts being 'waterproofed', as on a car. Finally, comfort for the rider figures largely in the design, which is sprung front and rear, and provided with a large cushion and backrest; and, if that is not enough, a windscreen will be added, and probably a waterproof apron."



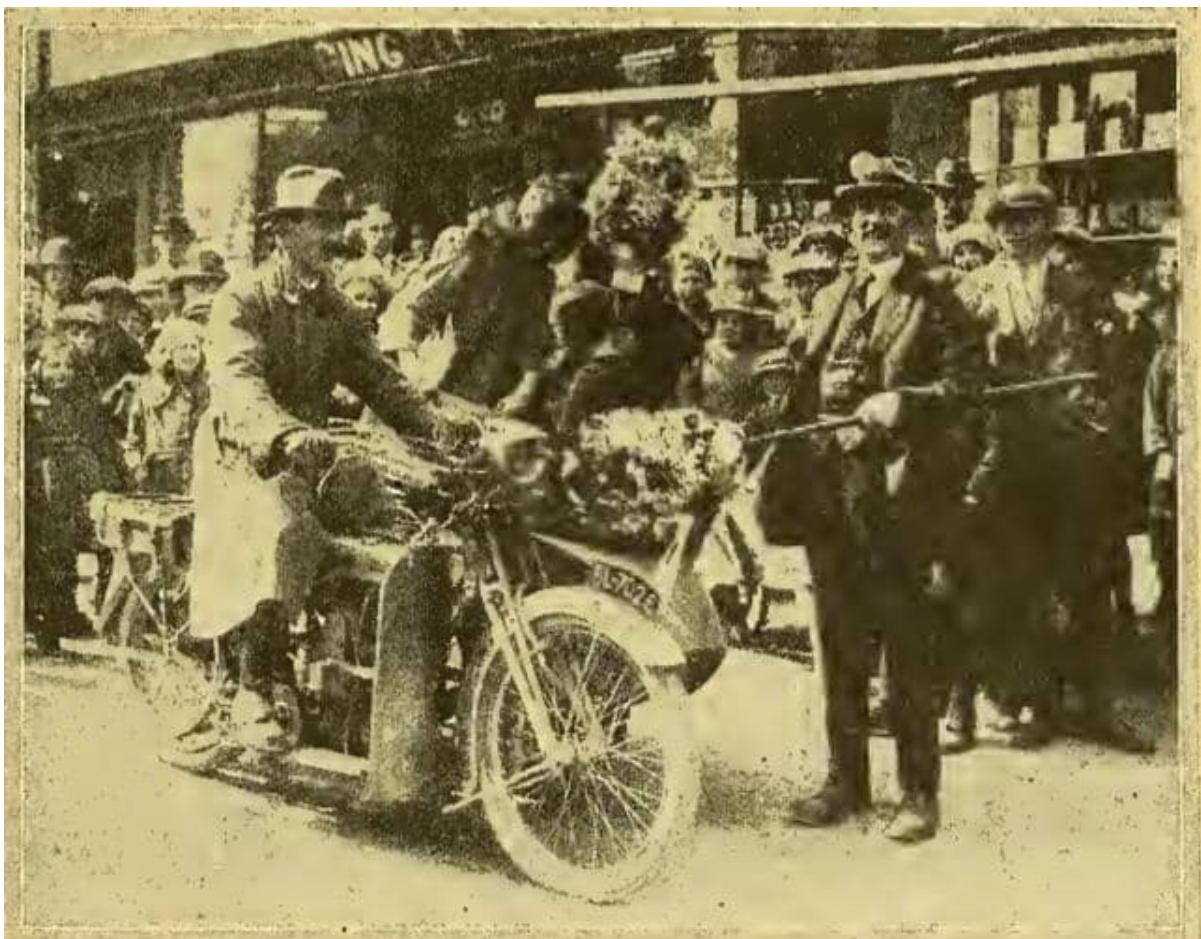
"Clothed as he is, without overalls, HE Fairley drove this carette through a muddy Scottish trial."

"TWO AMBITIOUS MOTOR CYCLISTS, FAF Johnstone (550cc Triumph) and ED Hill (348cc Douglas) are endeavouring to ride from Singapore to London. They left on December 21st and rode to Penang. Thereafter they found the roads unrideable, so made, their way along the railway to Patalung, where they joined the roadway and got as far as Rompibun. Getting their machines rigged up so as to be able to ride along the railway track, they were then unable to get the necessary, permission to use the lines, and therefore they went on to Bangkok by train. Owing to the total absence of roads and the nature of the country through which they must pass a considerable portion of their journey will have to be done by train and boat. From Burma they proceed to India, where the roads should present no difficulties, and then pass on to Persia. From Basra it is intended to use the railway attachment through Mesopotamia and on to Constantinople, after which plain sailing is expected. The journey will take about eight months, and the riders carry enough petrol for 600 miles."

"SUNNY JAPAN. FOR THE BENEFIT of English and American motorists in Japan some rules affecting driving are printed in English. We give herewith a few specimens: 'When a passenger of the foot hove in sight, tootle the horn—melodiously at first, but if he still obstacles your passage, tootle him with vigour, express by workings of the mouth the warning "Hi! Hi!"...Beware the wandering horse that he shall not take fright as you pass him by. Do not explode an exhaust at him; go soothingly by...Give space to the festive dog that shall sport in the roadway...Avoid entanglement of dog with your heel-spokes...Go soothingly in the grease-mud, as there lurks the skid-demon.'"

"ALL AMERICAN CLAIMS FOR WORLD'S RECORDS in 1921 have been disallowed by the FICM, as the persons responsible have failed to realise that in the case of long-distance records a standing start must be made, and in the case of the mile record, only the average speed after

two attempts, one each way, is allowed to made, and in the case of the mile record, was made on a circular track, and it was therefore urged that the mean speed was not required, but the International Federation have insisted that all short distance records must be made in accordance with their regulations."



"Modern transport meets ancient custom—last week the Hocktide Court met at Hungerford to elect the officers for the year; those elected are the Chief Constable, officers of the town, and the 'tuttimen'. The latter have the privilege of making a tour of the town and kissing all the girls they meet, giving an orange in payment for the kiss. As may be seen, the sidecar passenger qualifies for the golden fruit."

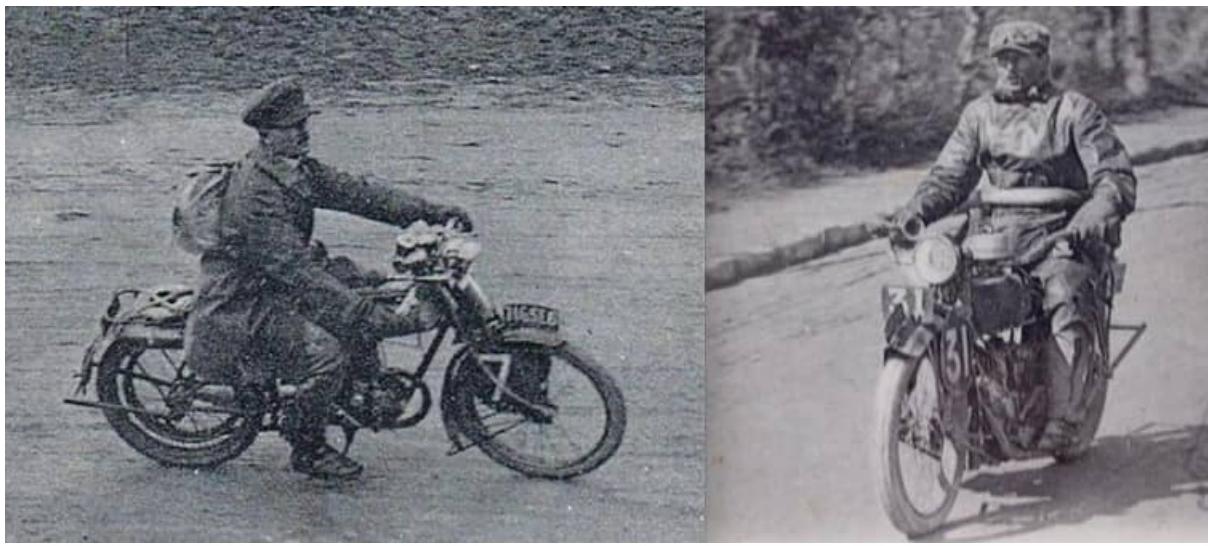
"THIS IS HOW A BAD RAINSTORM is described by a French journalist who followed the Tour de France. 'After Aix heavy clouds pursue us. We try to escape them, but to no purpose. They fall on us, and it is a terrible deluge; torrents of water descend upon us, the rain which falls in cold, penetrating, punishing; it paralyses the bravest hearts. The nature of the surface is difficult. There are roads which are all stones, rough, jolts which provoke numerous short and violent oscillations, dangerous to the mechanism and to the wrists of the drivers. We reached Frejus in a veritable lake of mud. The morning has been disastrous.'" Fortunately, as a local French newspaper reported, "The raging elements do not stop the competition." Sixty seven riders set out on the 3,700km trial; 40 of them made it to the finish seven of them with clean sheets. The International Tourism Cup went to messrs Borgotti and Rolly (Gnome and Rhone).



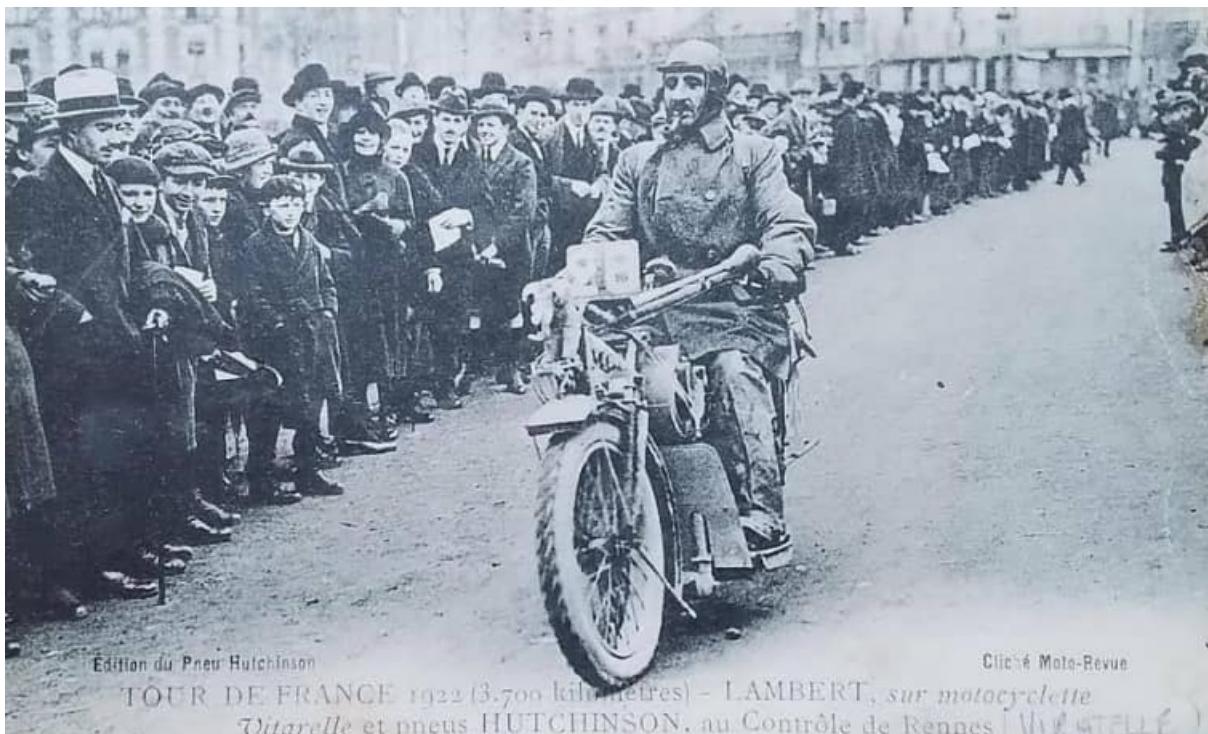
Of 67 starters in the MC de France's Tour de France 40 completed the course; seven made clean runs.



"Out of 67 machines at the start, 40 reached the finish line, of which seven were not penalised. The stormy weather did not stop the competitors' progress. The Coupe Internationale de Tourisme went to Gnome et Rhone (Borgotti and Rooly). The Revue Motorcycliste cup goes to Reynartz (Gillet). The Gillet Cup to Dubost (DFR). The President of the Republic Cup to Salmson (Lombard-Bueno). The cup of the President of the Council to Bignan (De Marnes-Martin). The other winners are: Velocette (Berger), ABC (Naas), DFR (Pierre), BSA (Berrenger). Awards: Viratelle, Rover, Triumph, Benjamin, Sunbeam, Mathis, Fournier, Senechal."



Pierre (DFR) won the 350c class of the Tour de France; (Right) Vache competed on an Indian twin.



Édition du Pneu Hutchinson

Cliché Moto-Revue

*TOUR DE FRANCE 1922 (3.700 kilomètres) - LAMBERT, sur motocyclette
Viratelle et pneus HUTCHINSON, au Contrôle de Rennes (VIRATELLE)*

Lamberet, pipe firmly clenched, leaves the Rennes checkpoint on his Viratelle.



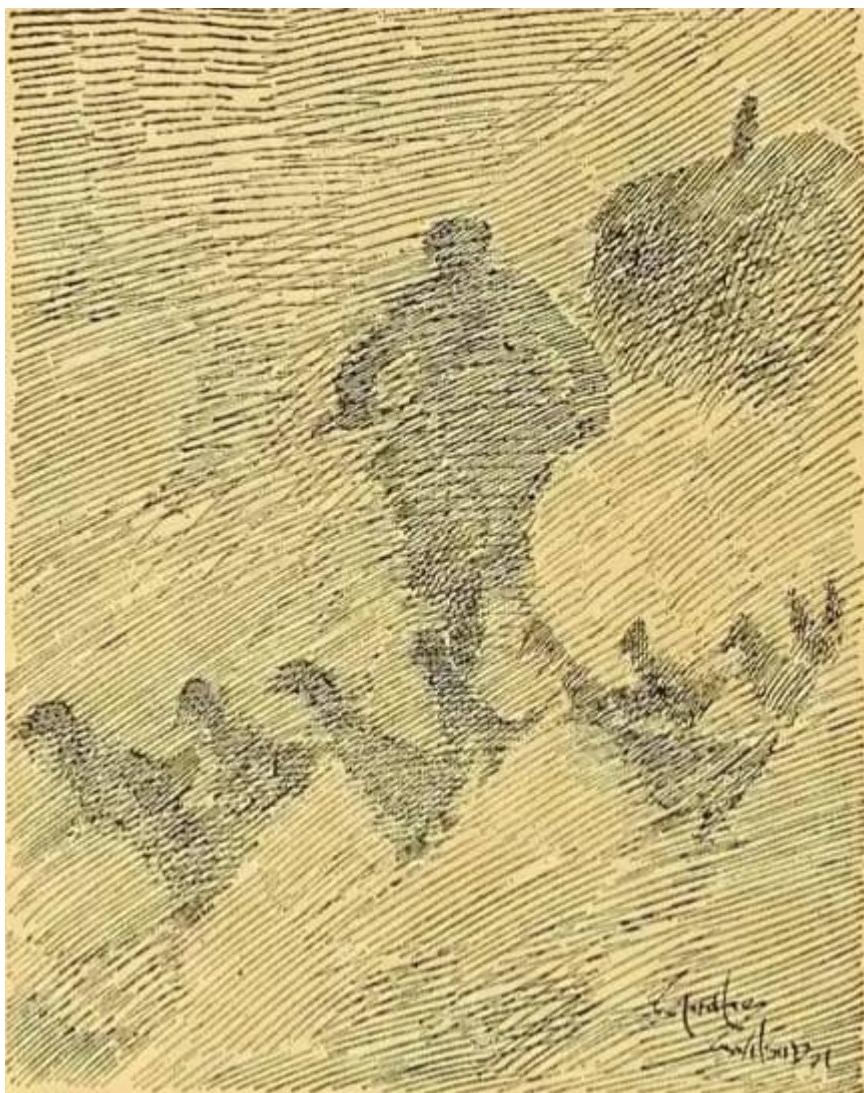
"IT IS WELL-KNOWN THAT RAIN WASHINGS of a tar-treated road are apt to kill the fish in any river they may reach. A Joint Departmental Committee appointed by the Ministries of Transport and Agriculture considers that highway authorities should give preference to asphalt bitumen free from tar products for the treatment of roads draining directly into fishing waters."

"MEMBERS OF THE MCC COMMITTEE, competitors, and officials in the London-Edinburgh run will be made honorary members of the London Country Club for the day, and will be able to make use of the club for the purpose of getting light refreshments in the afternoon and dinner in the evening prior to the start of the run, which takes place on Friday, June 2nd, the day following the Senior TT race in the Isle of Man."

A Motor Cyclist's Country Diary

"POETS AND PAINTERS HAVE RHAPSODISED over the fleecy mist clouds, but the motor cyclist loves them not. They are worse than inky darkness, for they are impenetrable by the strongest lamp, they cling closer than a brother, they make us like unto the Father Christmas of the

greeting card—and are altogether soul-killing. To watch a rolling fog from the top of a mountain is fascinating—when the fog is in the valley below or enshrouding some distant peak; to be personally mixed up in one on a motor cycle is an abomination. Those who live in the country and use their motor cycles to get to business in some neighbouring town have been greeted by the fog in their bedrooms, they have looked out of the window on to their own patch of the great round world to see if the said fog was as bad as yesterday, and have discovered it was worse. Then they have buttoned everything which would button, and set off on their journey, hoping that the meandering, unenterprising village cows will not be in the lane, that platoons of ducks and geese will not be slowly waddling to the green or duck pond, and that the school-coming children will have the sense to go to one side of the road or the other. All these daily possibilities past, there is the corner at which the dog always rushes out and which we have in vain endeavoured to kick, and there is the next corner at which we frequently find one or two pigs—apparently stone deaf, and bereft of both sight and sense—crossing the high road at the psychological moment we arrive. They are uncertain enough in blazing sunshine, but in the midst of a fog they are a risk no self-respecting accident insurance company would take. Sundry milk carts returning from the station, driven by boys with their hands deep in their breeches pockets, and whistling with such vigour as to endanger the retention of their front teeth and exclude all other sound, are also to be contended with. Altogether the ride from country to town in recent days has been a trial to those with nerves, even if we did go through ‘the Great War, daddy,’ and in those years take everything as it came, and with our ‘Where did that one go to, Herbert?’ make a joke of things which carried death in their wake. Only the other day the grandmother of a boy who will come into a big estate and a title confided in me thusly: ‘Stephen is bent on having a motor cycle. He’ll probably get his way, too,...if he does, he’ll be certain to be killed. They’re so very dangerous, and he is so venturesome.’ I comforted her by saying I hadn’t been killed yet and that the boy would be quite as safe on a motor cycle as on some of the young horses I’d seen

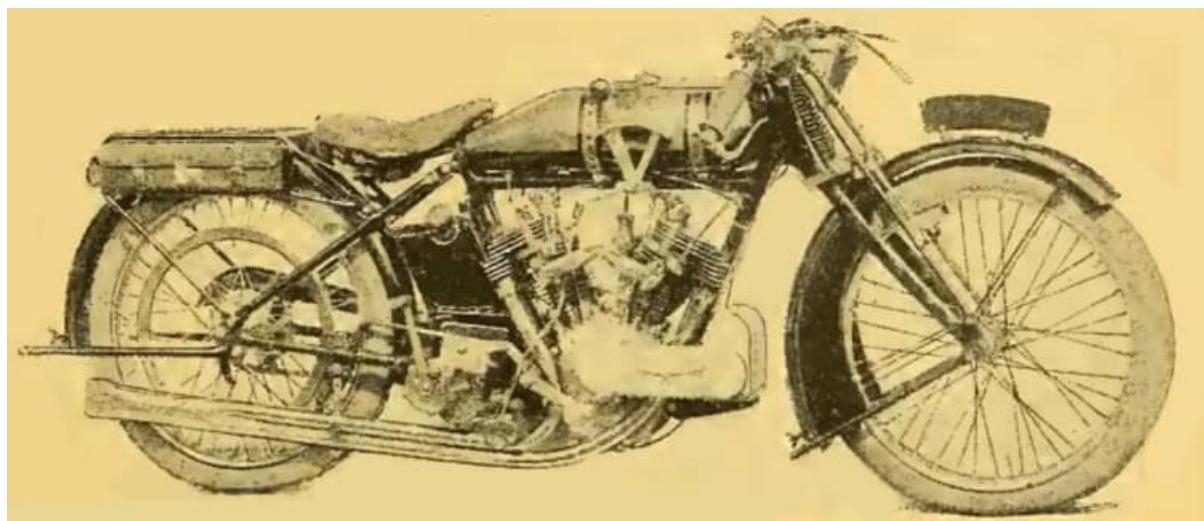


"Platoons of ducks slowly waddling to the green."

him riding. There are a line of gates over a highway in Yorkshire along which several motor cyclists pass each morning. On each side are open fields with stock running in them. It is an inconvenience to the farmer if the stock get wrong—the gates are a daily inconvenience to the motor cyclists and others who use the road. The MCs have come to an agreement that the first to reach the said gates will throw them open and leave them so for the benefit of those who follow, the last comer to close them. As in the case of gates out hunting, however, the last man always imagines that there is someone else to come. The result is, the farmer is furious. Motor cyclists have to live their life in that district where folk are very locally minded and where fat sheep and bullocks, turnips and crops are the main topic of conversation. Consequently, with public opinion against them, they, as sensitive fellows, ask, 'What should we do?' To fence off those fields would be an expensive undertaking, to dismount five times to open gates is so irritating as to upset the equilibrium of some MCs (who do not salute the happy morn too cheerfully when there's snow on the ground or lakes in the road). The town motor cyclist knows 'nowt' about these field gates over the high road, but we country cousins have much experience—and this is the year of grace 1922, and not the days of stage coaches, of toll bars, and Dick Turpin's Black Bess which could jump over the gates at a pinch."

J Fairfax-Blakeborough.

"AT THIS PERIOD OF THE YEAR it is not uncommon to find in our letter bags a small proportion of missives protesting against the Tourist Trophy races, on the grounds that they are valueless to the general public. The fact that there have been fewer than usual of these communications this year may perhaps be regarded as indicative of a more general realisation of their importance. Only superficial observers imagine that the race is run purely for advertisement and immediate gain, and it is safe to say that not a single firm which enters for this classic event fails to learn some lesson of value which is later reflected in the standard product. There are few solo mounts of high repute which do not owe a large measure of their success to lessons learned in the TT, and the Isle of Man course is ideal for developing the very features which the tourist most appreciates. No motor cycle stands a chance of success over the sinuous course unless it steers perfectly, accelerates rapidly, and is fitted with first-class brakes. The necessity for large tyres, sound gears which change easily, and practical transmission, have already been proved. The effect of the long race on engine design, both as regards cooling and lubrication, has been of incalculable benefit, and still further improvements in these respects are likely to accrue as a direct result of the forthcoming races. In addition, the Junior event has been mainly responsible for the high state of efficiency to which the modern 350cc mount (perhaps. the most popular solo machine of to-day) has attained. The Lightweight race, so diligently fostered by The Motor Cycle, has grown considerably in importance, and already the 250cc engine has been brought to a state of perfection which would have been considered almost impossible only a few years ago. It is largely through the Tourist Trophy races that motor cycles are perfected and power output increased apace from a given cubical capacity. Thus the cost of road transport is being steadily reduced as smaller engine sizes become practicable."



"To be added to the list of attractive sports models already on the market is the 'Quick-Six' Martinsyde...a Speedy 739cc Solo Mount...the distinctive Martinsyde feature of overhead exhaust washer is also employed for the exhaust and side inlet is retained...the length of the cylinder has been so designed that the top ring just emerges into the head by 10-1,000ths of an inch, thus preventing any ridge being formed at the top."

WISDOM FROM IXION: "A CHIEL TAKIN' NOTES. The croakers say that the crag-and-chamois type of trial will shortly become moribund, as happened to pedal-cycle competitions 30 years ago. I don't think so. Why? With pleasure. Last Thursday I hied me to the nearest main line railway station. Travelling per ohv Triumph, I naturally arrived well before the train. Standing in the booking hall I spotted two neighbours of mine—public school boys aged perhaps 17 or so. They arrived per baby two-strokes—and to judge from their slippers feet, dishevelled hair, and

other clues which my Sherlock Holmes brain read like an open book, they had not yet breakfasted. They had come to collect their weekly copies of the Blue 'Un off the local newspaper train at 8am rather than wait till the local newsagent handed in the papers at their own door (ten miles away) four hours later. In other words, the growing manhood of the country presents the pastime annually with thousands of recruits whose main obsession is to get hold of some sort of motor cycle and smash it up in sporting events. So the freak trial may very well survive many years after it has ceased to serve any utilitarian purpose."

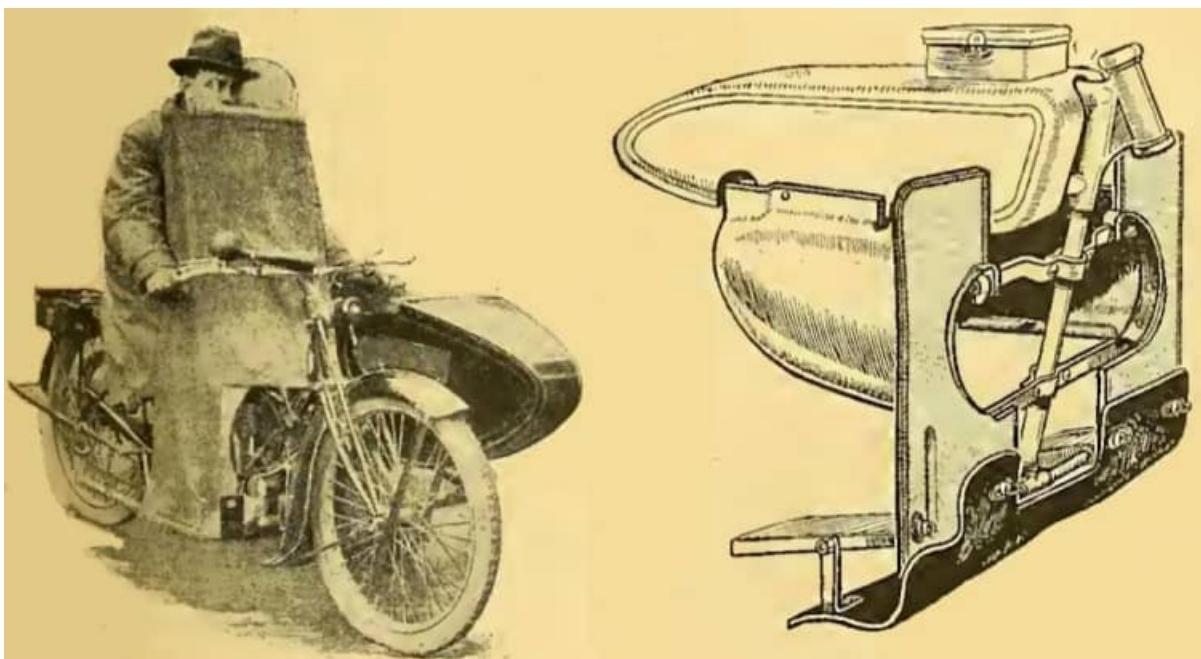
...AND PRACTICALITY FROM IXION, leavened with a dash of whimsy..."One of our fair readers makes an irresistible appeal to my chivalry. Will I please put a couple of anatomical pointers to designers of drop-frame machines intended for feminine riders? The first is that they should ascertain the mean, normal, or average length of the feminine leg? They will find it is appreciably shorter than the male. They fail to allow for this in their frame layout, with the result that the fair motorcycliste can only straddle her mount on tiptoe. I am credibly informed that there are ladies on the stage who can remain on tiptoe by the hour, and indeed acquire much wealth and fame by demonstrating this ability. But my correspondent is not an Adeline Genee, and after a few seconds of the exercise her machine generally collapses sideways with a sickening thud. Secondly, will the aforesaid designers kindly set their sisters astraddle the machines they design, and note where the lady's ankles come. According to my correspondent the odds are several billions to one that the ankle will be adjacent to the knobblesome end of the footrest or footboard spindle. Let the designers then reflect that a slim feminine ankle, clad in filmy stockings of a champagne tint, is adorable; but that a thick ankle, reminiscent of the fetlock of a drayhorse afflicted with glanders, is a noisome object. Wherefore every fair motor cyclist wisely wears the thinnest stockings obtainable. So let the designer attire his own ankles in similar stockings, and then try to rivet over the end of the aforesaid footrest spindle with his ankle bone. He will suffer such acute pain that he will promptly alter the design. 'Nuf sed?"



Indian rider Bernard won the 1,000cc sidecar class in the Course de Cote du Mont Ventoux hillclimb..

"THERE IS LITTLE DOUBT THAT the originator of the TOM windshield has had more than one thorough soaking whilst driving in the face of heavy rain—it is so purely utilitarian. But this device, although not handsome, is rather less forbidding than the metal shield. Legshields, which keep the rider free from mud and create a forced draught of air upon the cylinders, are the first part of the equipment. These shields do not rattle and are quickly detachable. The remainder of the device is a complete shield made of twill, which will keep the driver of the motor cycle almost as dry as the passenger in the sidecar. A small aero windscreens is mounted

on the top of two uprights which extend the shield. The model illustrated is fitted to a 4hp Triumph, but a rather improved form was fitted to a Harley-Davidson, which has hand muffs incorporated. Another advantage of the shield is that if the machine is left out in the rain the whole fitting can be hinged backwards to cover the top of the tank and the saddle, since the supports are pivoted on the top tube. The TOM windshield can be obtained from the TOM Syndicate, c/o Sir Walter Townley, KCMG, 3, Temple Avenue, London, EC4."



"When the TOM windshield is in position no interference with the engine cooling is caused, for there is an opening through which air is admitted to the engine. (Right) Complete protection from mud and mechanism for the rider's legs is provided by the lower part of the shield."

"THEY ARE TROUBLED WITH NOISY MACHINES out in the United States just as we are in this country. An American writer's opinion is stated as follows: 'What peculiar kink in a man's mental processes makes it perfectly all right for him to open the muffler and race a motor on a quiet Sunday morning and proceed to shatter the peace and tranquillity of the neighbourhood simply because he is so broad, is beyond us.'

"AT THE BMCRC MAY MEETING on Saturday last there were really only two scenes in the picture, the Brooklands Junior and Senior TT races of 26 laps (70½ miles) and 30 laps (81½ miles) respectively. Naturally, with the Isle of Man TT races in the offing, not a few prospective contestants in the Manx events seized the opportunity of giving their mounts a try-out on the Weybridge track. Out of 34 entrants in the Junior event, 29 faced the starter, and it was not long before it became apparent that CG Pullin (346cc Douglas) had the speed which had made him favourite. He was not having it all his own way, however, for a crowd of Blackburne-engined machines pressed him closely. E Remington (349cc Blackburne) was setting a cracking pace, while A Fraser and GH Williams (348cc Sheffield-Hendersons) both were possible winners if Pullin failed to keep his place for an instant. Meanwhile, the 250cc class was in the midst of its own battle. WD Marchant, the Sheffield-Henderson record-breaker, was going like the wind, albeit seriously challenged by JV Prestwich on the 249cc New Imperial, when a stone or fragment of metal was thrown up on to his oil tank and temporarily stopped his progress. Fraser also suffered a setback, his throttle wire breaking—clearly the luck of the Sheffielders was out. After the first half-hour the stayers began to be distinguishable, as man after man dropped out.

E Longden (348cc DOT) suffered a fall, and his machine caught fire. J Whalley (348cc Massey-Arran) was seen no more after his third lap. Tudor Thompson (350cc Douglas) rolled in with his front cover off at the 14th lap, and T Eve (350cc Douglas) and AA Swan (249cc New Imperial) both stopped in their seventeenth laps, the former shedding his engine chain and the latter coming into the depots with a bad misfire. Clearly now it appeared to be Pullin's race, for at his 21st lap only Remington (Blackburne) was at his heels, although Williams and Fraser (Sheffield-Hendersons), Dequin (348cc Ivy), and Prestwich (New Imperial), the JAP exponent, pressed uncomfortably. Then the unexpected happened. On the last lap one of Pullin's tappets seized, and his lead was insufficient to enable him to do any more on one cylinder than to run in a close second behind Remington, with Williams and Fraser third and fourth. In the 250cc class Prestwich was miles an hour faster than anyone else, and finished easily a winner. At the fall of the [Senior] flag G Dance (492cc Sunbeam) and FG Edmond (499 cc Triumph) got away beautifully, but J Emerson (494cc Douglas) almost immediately showed superior acceleration and gained a lead he never lost. Pullin and Anstice (496cc Douglasses) came in together at their third laps—more tappet trouble, so it was said—FB Halford (498cc Triumph) wobbled rather badly at times, and had two stops for oil—one on his fourth lap! RE Dicker (499cc Rudge) broke a valve on his 11th lap, and E Searle (499cc Sheffield-Henderson), who was going really well, suffered a cruel stroke of ill-luck—the valve spring cup shearing out its centre, allowing the valve to drop into the cylinder. J Connor (482cc Scott) was gradually improving his speed, but oiled a plug on the ninth lap; subsequently he settled down to a steady '63' and kept it up. H Nicholson (496cc Martinsyde) met his Waterloo in valve trouble- at his 13th lap. Sheraton (490cc Norton) and Wallace (496cc Duzmo) were consistent but slow. When Dance (Sunbeam) and Woodhouse, Halford and Edmond (Triumphs) had completed their tenth laps, Emerson's Douglas was screaming along in its 11th circuit—clearly he had the pace to win. When two-thirds of Emerson's race was over Dance had disappeared, and at the start of his last lap Halford, Edmond, Gayford (496cc Douglas), Connor (Scott) and Sheraton (Norton) were respectively four, five, six, eight and eight laps behind him; and his luck, speed, and fine riding all held good. During the race Emerson broke the 50-mile British record for 50 miles in 38min 5.07sec (78.77mph); also the hour record, covering 78 miles 1,601 yards at a speed of 78.91mph. Results. 250cc: 1, JV Prestwich (249cc New Imperial) 56.83mph; 2, A King Smith (247cc Morris) 48.41mph; 3, W Handley (250cc OK Junior) 47.16mph. 350cc: 1, E Remington (349cc Blackburne) 61.63mph; 2, CG Pullin (346cc Douglas) 61.07mph; 3, GH Williams (348cc Sheffield-Henderson) 59.89mph. 500cc: 1, J Emerson (496cc Douglas) 78.93mph; 2, FB Halford (498cc Triumph) 68.89mph; 3, FG Edmond (499cc Triumph) 66.79m.h.

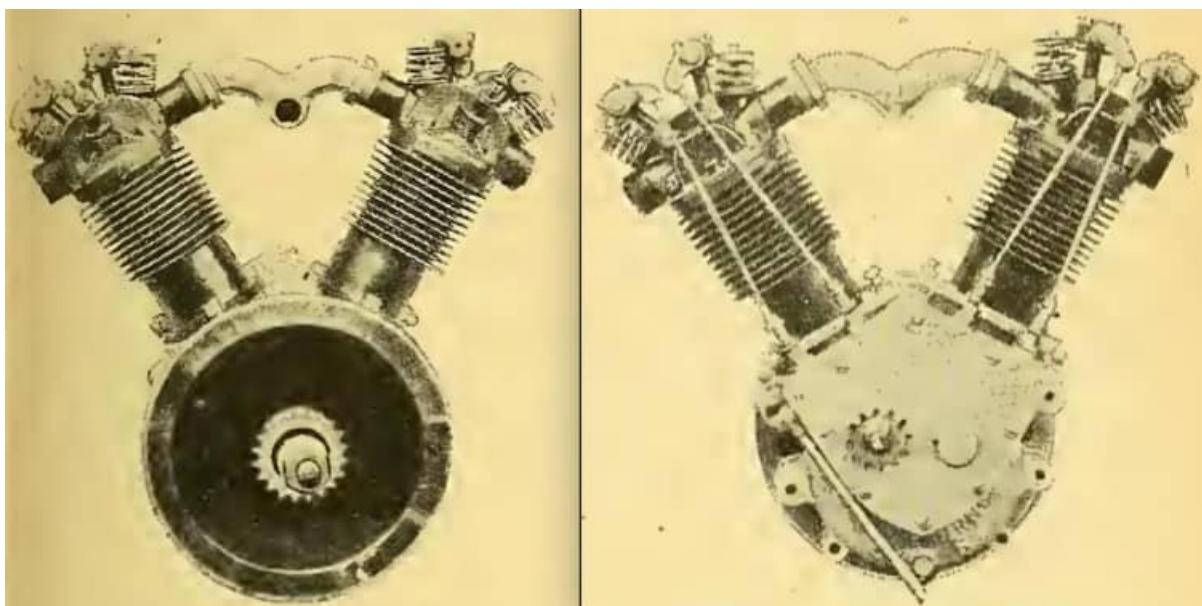


"From left: E Remington (348cc Blackburne) won the Brooklands Junior TT Race by a short head at 61.63mph. G Dance (499cc Sunbeam) taking the lead, closely followed by J Emerson (496cc

Douglas) at the start of the Brooklands Senior TT race. J Emerson after winning the Brooklands Senior TT Race and breaking the 50 miles and 1 hour records."

"THERE IS NO DOUBT THAT it is a modern tendency to favour the small high-efficiency type of engine. It is generally speaking more easy to get the utmost efficiency out of a small engine than out of one of larger capacity. The small engine, moreover, is necessarily lighter, more economical and, if properly designed, can be induced to give practically the same results as one of larger size. Messrs Burney & Blackburne have certainly done wisely in introducing a new 5-6hp overhead valve engine suitable for sports models and fast sidecar outfits. The engine is composed of two 350cc cylinders, and may be had in two patterns: short-stroke, 71x88mm, 626cc, or long-stroke, 71x97mm, 768cc. In general appearance it is decidedly attractive. The cylinders are set at 60°, and the arrangement of the valve gear is almost identical with that of the well-known 350cc TT engine. The model under consideration can be supplied either with cast iron or aluminium pistons and with ordinary or special cams, with which, its manufacturers claim, it is possible to attain over 80mph."

"FREAK CONSUMPTION: MOST PETROL consumption trial results may be taken with the proverbial grain of salt. Recently, an event in Christ-church, NZ, was won by the rider of a 580cc twin, which covered 44 miles on slightly less than a pint of petrol—356mpg, which just shows what can be done by taking the matter seriously."



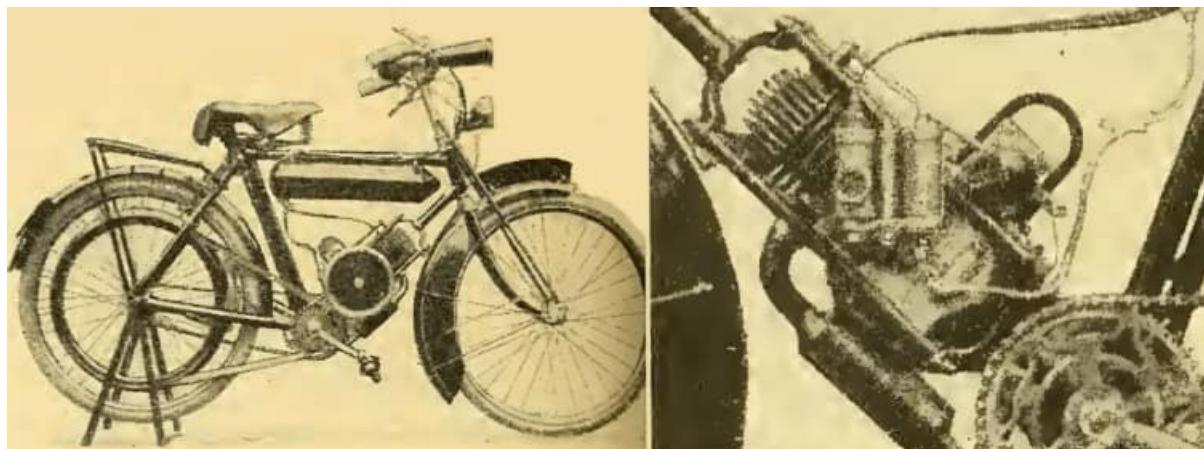
"A new long-stroke Blackburne twin with overhead valves, with a bore and stroke of 71x97mm=768cc. (Right) The cylinder heads have been entirely redesigned and the makers claim 80mph has been attained by this model."

"AFTER TAKING A TREMENDOUS TOSS the other day on a greasy road, I[xion] consulted three tame experts as to the secret of vertically on grease. The first remarked 'Speed! Keep the throttle wide open, and she'll cut through it!' The second said, 'Stand on the footrests and leave the bike to balance herself!' The third replied, 'Get a hard saddle. These modern comfy saddles chuck your weight all over the place, and, of course, she wobbles.' In the multitude of counsellors there may be wisdom."

"A GAP IN THE COMPETITION PROGRAMME is shown up by the entry of two Harper Runabouts in the Scottish Trials," Ixion remarked, "for this machine is designed for the lady of the villa, the

tennis court, the boulevard, and the golf links, rather than for the professional stunt-merchant. Nevertheless, the pair did miraculously well. The whole design is extraordinarily ingenious, and readers should study it in detail when they meet a Harper in the flesh. A machine which cannot skid, climbs practically anything, weighs, next to nothing, and runs on air (almost) is bound to make good. It has a mechanical starter, interchangeable wheels, detachable rims, straight-sided tyres, and all manner of gadgets, while the suspension is admirable. A famous TT rider told me he had done his best to capsize a Harper without success."

THERE HAS ALWAYS BEEN a very considerable demand for a really light motor cycle to fill the intermediate gap between the pedal cycle and the lightweight motor cycle...the most recent addition to this class is the Airolite, which is about to be marketed by the Small Engines Company, Coventry Road, Birmingham. The manufacturers are responsible for the Simplex 1½hp pedal cycle attachment...Having a bore and stroke of 50.8×50.8mm (103cc), the engine is of the normal three port two-stroke type...Including luggage carrier, tool bag, number plates, etc, the whole machine weighs less than 70lb...It is claimed that the tiny engine will propel a rider of normal weight up all ordinary hills without pedal assistance, and that it will attain a speed of 15-20mph on level roads."

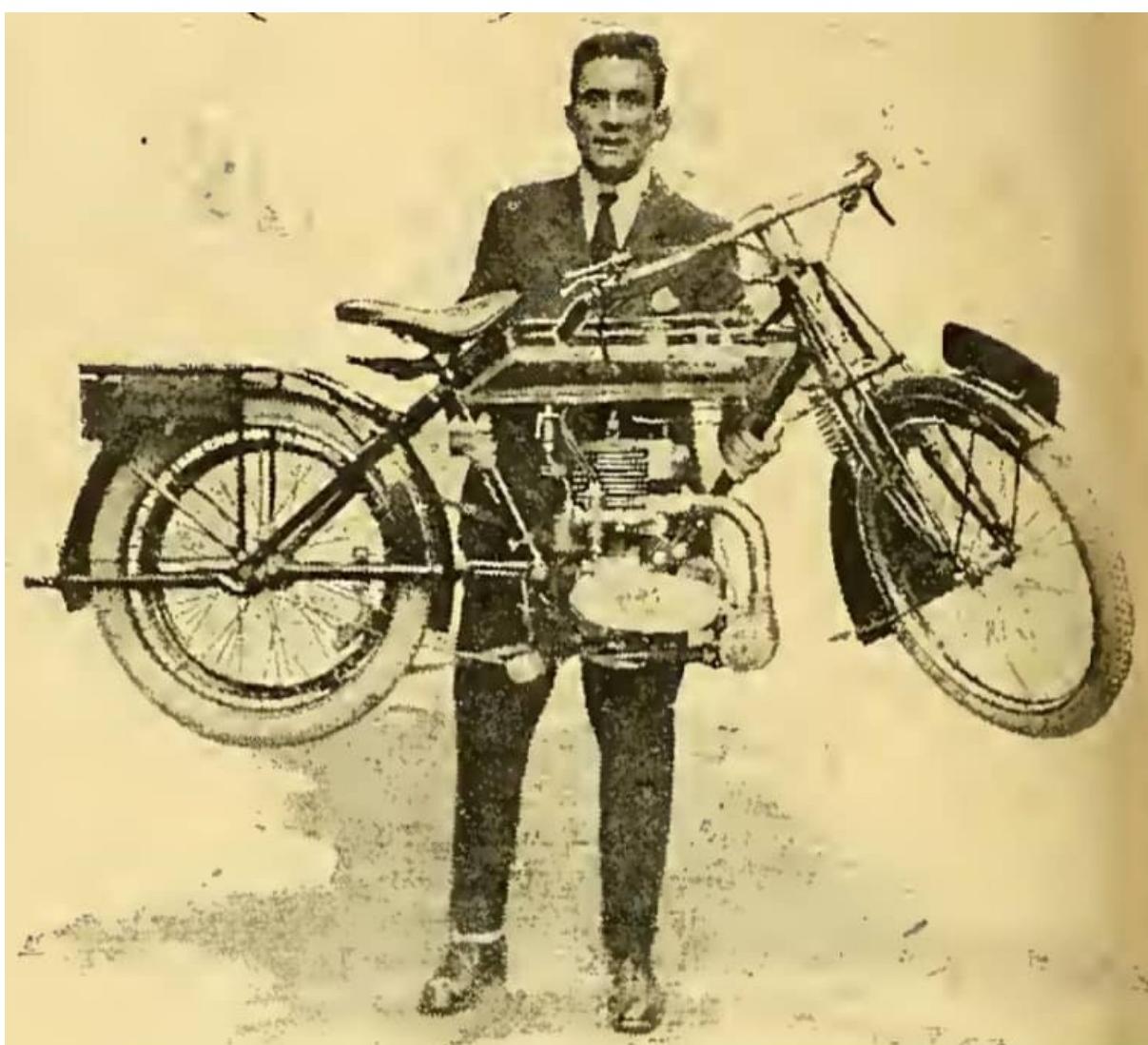


"A lightweight retaining the essentials of the pedal bicycle with the addition of a small two-stroke engine. (Right) The 50.8×50.8mm two-stroke engine which is carried within the front member of the frame."

"NEW ENGINES ALWAYS FASCINATE MOTOR CYCLISTS," said Ixion, "though we seldom buy them till we get public proof of their stamina. I have often heard of the GRI, but I did not make its intimate acquaintance till the Land's End run...I pricked up my ears, because its weary owner remarked that he never carried a spare valve, didn't take any stock of stainless steel, and would guarantee his common or garden 3% nickel steel valve till the last trump blows. So I naturally investigated. This quaint engine has only one valve, which alternately lets in the cold gas and lets out the hot flame. These two streams are prevented from mistaking the carburettor for the silencer by an unlubricated rotary valve, which shepherds everything to its proper destination...But this is only half the tale...5:1 is regarded as quite a high compression ratio and 6:1 as the outside edge of the absolute stunt limit. But the GRI people calmly adopt 6.5:1 as their standard touring compression. If you aren't engineer enough to know what that means, dear reader, let me say that the more you compress one gasified drop of petrol before you fire it, the bigger punch you'll get when it goes off; it's just the difference between the same boxing glove with (a) my left inside it and (b) Dempsey's left inside it. So the GRI people get 16.8bhp at 4,200rpm out of their 500cc engine, and can easily run it on paraffin if they want to. With an

everlasting valve, too. Why isn't it in the TT? I hear they will use a ratio of over 7:1 on Brooklands ere long."

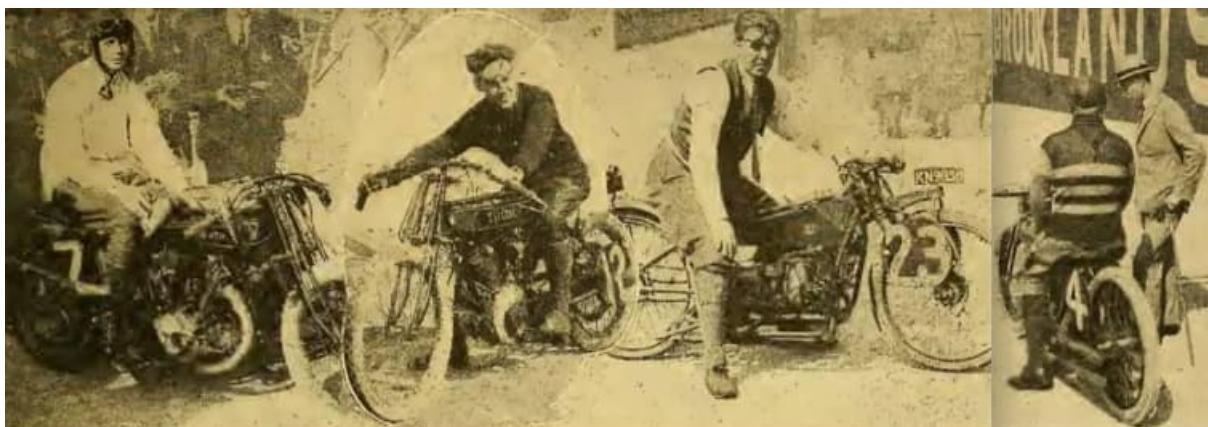
...AND HERE'S IXION MAKING A SENSIBLE point in his own inimitable style: A fair correspondent requests me to issue a comprehensive invitation to all motor cycle manufacturers producing ladies' machines. Will they please attend the next dance in their neighbourhood? If invitation, this will be easy; if subscription, Motorina will forward cost of tickets on request (limit, 1s 6d). On reaching the ball, will these makers select an average British girl apiece (not golf or champions), make the running fierce, presently sit out a dance, and retire to a secluded corner of the conservatory. Having proceeded thus far, the next order of the day is to overcome natural bashfulness, take the fair damsel's hand and toy with it. While toying with the hand hand, stroke the thumb and forefinger, making careful note of the span. On return to business next morning, let the several manufacturers measure the span required to operate the handlebar clutch levers of their ladies' models. They will then realise why, when a lady motor cyclist changes gear, she creates a noise like pushing a length of railway line against the teeth of a high-speed circular saw."



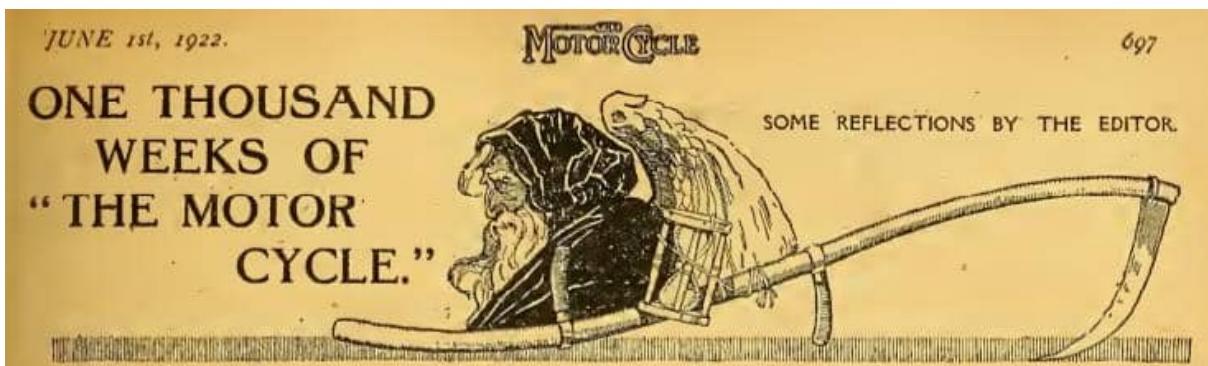
"A lightweight that is light: One of the pioneer two-strokes, the Connaught, is among the lightest of fully equipped motor cycles. The single-gear model weighs but 135lb. A slightly larger type, which has a 370cc engine, is proving itself to be an efficient sidecar mount: it survived the

London-Land's End trial, and, although at first reported as an absentee, secured a silver medal. It was the only two-stroke lightweight sidecar to secure an award."

"ON SATURDAY LAST HIS ROYAL HIGHNESS the Duke of York gave his patronage to a motor cycle race meeting at Brooklands in aid of the Middlesex Hospital and the Industrial Welfare Fund. Accompanied by Wing-Commander Greig, MVO, he...was received by the Earl of Athlone, Col F Lindsay Lloyd, Alderman and Mrs Duncan Watson, Messrs AG Reynolds, HPE Harding and DS Parsons. Princess Alice Countess of Athlone, Lady Mary Cambridge, Dame Ethel Locke-King and Mr Walter Kewlay (Secretary of the Middlesex Hospital) were also present. The Duke of York, himself a motor cycle enthusiast, entered a Trump-Anzani and a Douglas, to be ridden by his chauffeur...The [Senior] race proved a runaway affair. Hall's Trump-Jap waltzed through the half-dozen men who started in front of it, and travelled much too speedily to let the backmarkers come up. On the last lap the rider peered round anxiously to see where Temple on the Harley was laying, and perceiving that no khaki blob was coming up with a wet sail, he eased off, actually riding one-handed for a few yards. Two Douglasses hunted him home, but failed to concede the set starts."

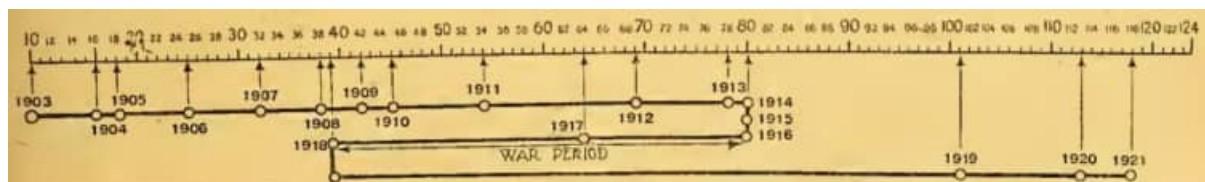


"From left: IP Riddoch (998cc Zenith-Blackburne), winner the Essex passenger handicap. J Hall (748cc Trump-JAP), who won the Duke of York three-lap Senior handicap. G Maund who, on his 398cc ABC, beat many famous riders in the Junior handicap. The Duke of York chatting with SE Wood, who rode a 988cc Trump-Anzani, entered by the Royal patron of the meeting. Wood wore The Duke's colours—scarlet jersey, blue stripes and sleeves."



"LAST WEEK *THE MOTOR CYCLE* CELEBRATED its thousandth consecutive number. Founded at a time when motor cycles were in their chrysalis stage, this journal has actively fostered and encouraged the development of a type of machine which we felt would eventually form the motor vehicle for the million. The motor cycle industry has experienced serious trials, vicissitudes and set-backs. Originally modelled on the lines of a pedal bicycle, with its high

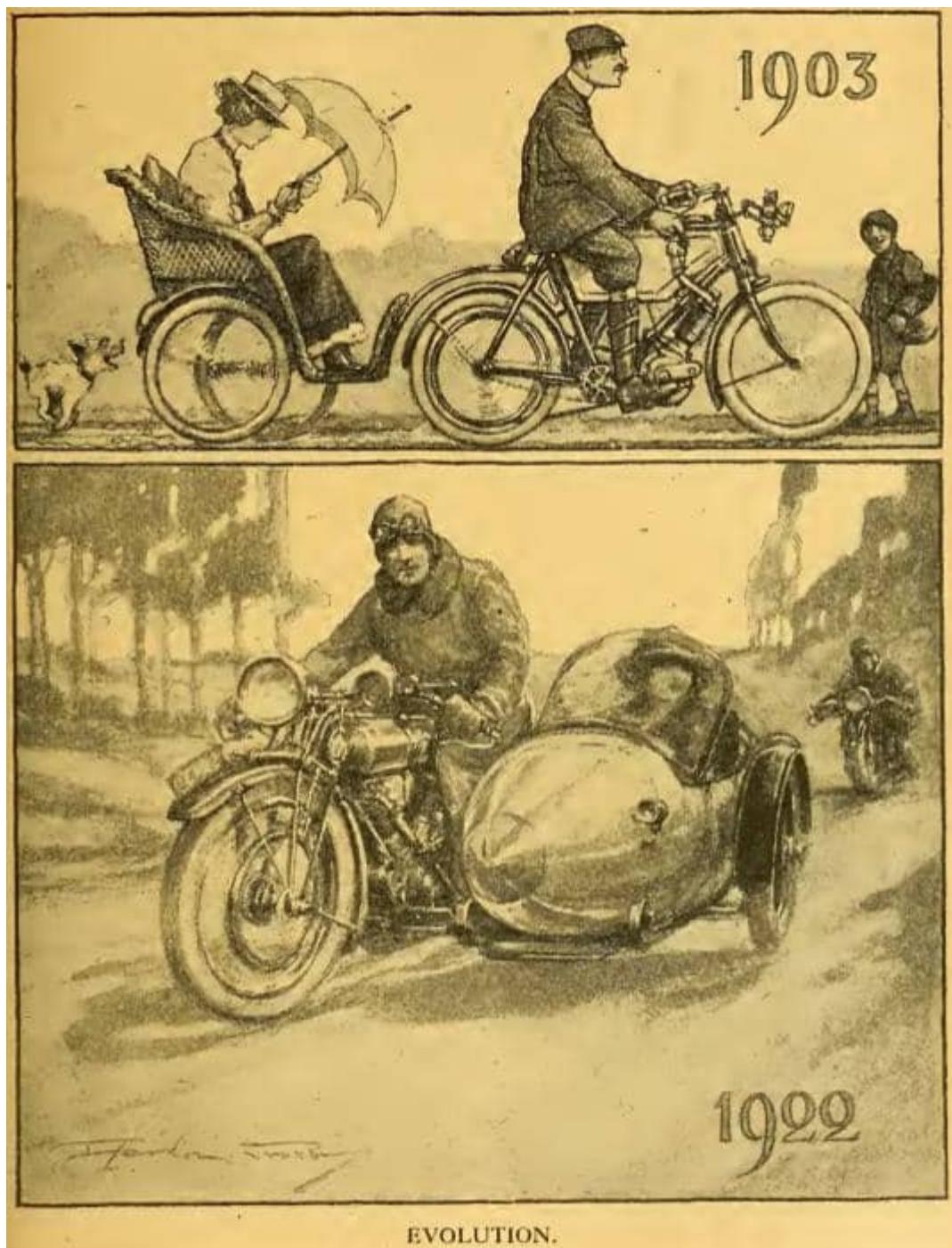
frame, short handlebar and comparatively large wheels, it at first possessed a somewhat high centre of gravity which brought it into discredit on account of its consequent instability. The process of evolution towards its present form has been, gradual, and we, who have closely watched its gradual perfection, sometimes marvel at our own early enthusiasm for its crude fore-runners. Originally motor cycles had only a single gear; their round or flat belts were unreliable. Gradually but surely the machine advanced towards perfection in reliability and comfort. Pedal gear was displaced by foot-rests and 'kick' starters, rigid forks by comfortable spring forks, a stand to support the machine became a permanent fitting, luggage carriers were added when the machines were found to be capable of transporting the rider's necessary personal impedimenta, the old unreliable accumulator ignition system gave place to the entirely successful magneto; frames were lowered, change-speed gears—thanks to the campaign initiated by *The Motor Cycle* in 1906—became standard fittings; reliable and weatherproof forms of transmission made their appearance; and to-day we have a machine equal in reliability to any form of motor vehicle on the road, and one, too, capable of being run at an infinitesimal cost compared with that of the more pretentious car. Hand in hand with the development of the mechanism and design of the motor bicycle itself, the solution of the passenger problem has progressed through its various stages. At first the demand in this respect was satisfied by a simple frail trailer. Subsequently the forecar, and next the tricar, became the vogue; latterly the sidecar has been introduced, and, despite its seemingly unmechanical layout, has proved entirely satisfactory and reliable, so much so that it is the most popular form of motor conveyance on the road to-day. On this auspicious occasion we may be pardoned for referring to the efforts that this journal has put forth in the directions indicated since Number One made its appearance on March 31st, 1903. We have often been paid the compliment that, it was owing to the persistency of *The Motor Cycle*, together with the introduction of the high-tension magneto at a critical period, that rendered possible the great motor cycle industry that is in existence to-day. Fifteen or sixteen years ago motor cycles were in disrepute—they had failed to



"The continually increasing interest in motor cycles from the year 1903 onwards, may be judged from this chart showing the average circulation figures of *The Motor Cycle* in thousands. Incidentally the British Army's great call upon motor cyclists during the war is graphically conveyed by the figures recorded during 1914 to 1918."

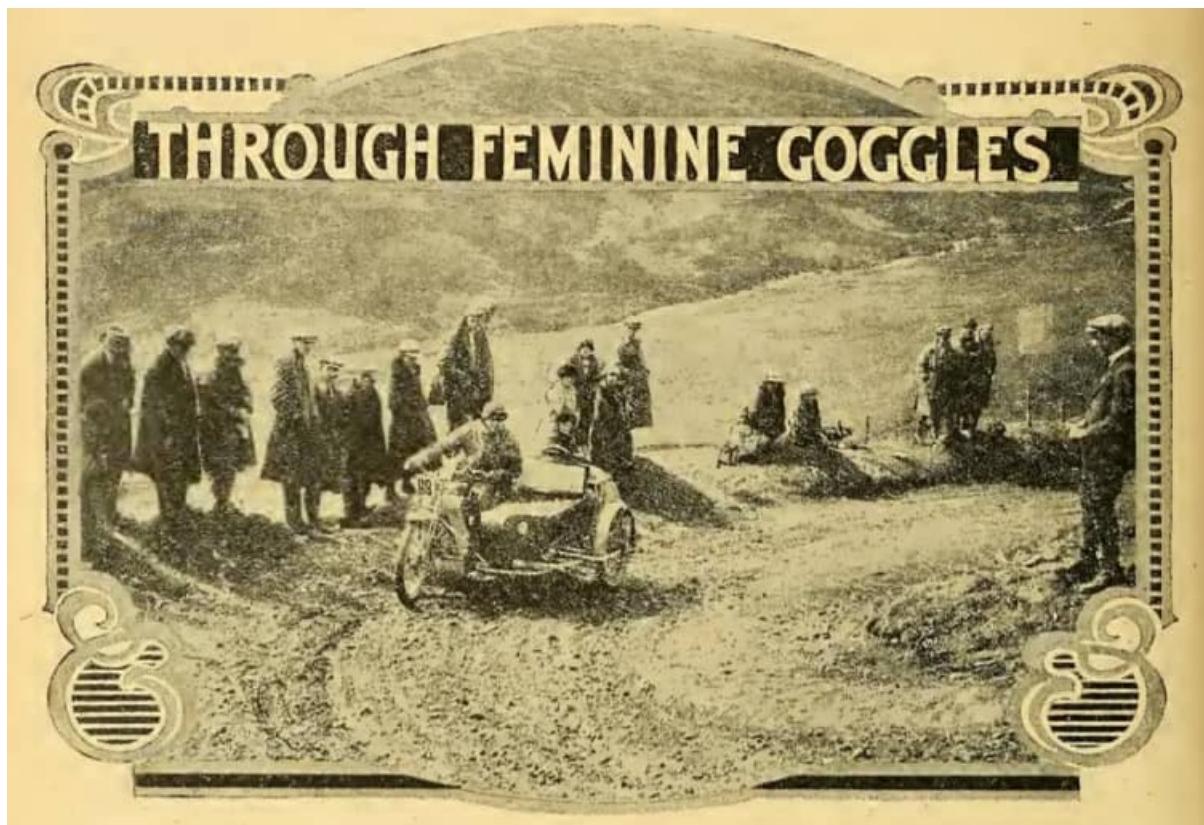
satisfy all at once the over-ambitious expectations that were entertained of them. They were but new to their work—a quite young introduction—but the daily Press, which is ever impatient of innovations, joined in a general condemnation of the seeming intruder. In this connection we have preserved among our records articles of a most damaging character that appeared in some of the newspapers of the time under such headings as 'Death of the Motor Cycle', 'Decline of Motor Cycles', 'Failure of the Motor Cycle', etc. Years of long and patient advocacy and propaganda work were needed to live down these damaging aspersions and to counteract the prejudice that they created in the minds of the unreflecting public. For over six years *The Motor Cycle*, in face of such uncomplimentary references as those to which we have referred, stood alone, in hoeing, so to speak, a long furrow, by steadily fostering, encouraging, and assisting design, by free comment and constructive criticism, never wavering in our conviction that the

motor cycle would win through and eventually triumph over its carping adversaries. Our optimism has been fully justified by results. So soon, however, as the motor cycle had made good by becoming a practicable road vehicle, and the industry showed signs of attaining the huge dimensions it has now reached, those who had poured their scorn upon it and scoffed at it in the days of its weakness now bestowed their blessing, in order, as we suppose, to reap where others had sown. Be that as it may, the motor cycle industry has attained to the distinction of being in a position not only to provide the means of healthy recreation and enjoyment to hundreds of thousands of both sexes, but to give profitable employment to many thousands of workpeople. It is also a point worth noting that the persons who favour the motor cycle as a means of recreation or who use it in connection with their business are of the active and energetic type, upon whom almost more than upon any other section of the community, irrespective of social distinctions, the future prosperity and prestige of the British Empire mainly depends. Besides all this, it is no small matter to be proud of that, by pertinacity in advocating the claims of, and focusing attention upon, the motor cycle, this journal has been the means of retaining for Great Britain an industry the products of which have a world-wide market. In other words, the motor cycle is an article in use the whole world over, and this country remains in unchallenged possession of the facilities for supplying that demand. While many other industries flag through foreign competition, the motor cycle industry more than holds its own. Possibly foreign countries may have been influenced by the pessimism of those who howled down the motor cycle in its early days, while manufacturers at home heeded our own counsel. In peace time the motor cycle has been the means of training the minds of our younger generation in a mechanical direction, which proved of inestimable value to the country in time of war. Many of our most daring and resourceful airmen were recruited from the ranks of motor cyclists, whilst votaries of the single-track motor vehicle were found in every branch of the British Army, where their mechanical bent was found of the greatest value. Recognising the big part that motor cyclists were destined to play in the war, *The Motor Cycle*, at the outset of hostilities opened a recruiting section, rendering services which formed the subject of a letter of warm appreciation from the Army Council. During the war the motor cycle replaced the horse as the mount for the despatch rider, and one successful campaign was carried out by an army mounted on the ubiquitous two-wheeler. From small beginnings the motor cycle has grown to be part of our national life; from an exclusive coterie of about 10,000 riders in 1903, the number of actual motor cyclists registered in this country increased to the remarkable extent of over 370,000 by the end of 1921."



IXION, OF COURSE, ALSO MARKED THE 1,000TH EDITION: "I always regret that I wasn't on the staff when No 1 was published, even if only as office boy. At that date, as far as I can remember, I kept my pot boiling with eloquent articles on poultry and pigeons in a contemporary, whilst my secret muse nurtured itself by publishing verse of mingled amorous and humorous tendencies, treatises on war, and fiction of deplorable badness. Only in September 1904 was this page first inflicted on a long-suffering public. What a staff we had in those days! They deserve to have things dedicated to them like the Early Christians, for only a man of remarkable faith and vision could believe in the motor cycle, as it then was. The originators of *The Motor Cycle* were not martyred for their opinions, because nobody took sufficient interest to be violent about it; but chaff, ridicule, contempt and financial loss were their portion. But they stuck to their guns, they played their part in fostering and guiding the infant sport and industry. To-day, when all the roads

of the world echo to our exhausts, when the motor cycle is every youngster's passion and dream, when manufacture employs thousands, they have their reward; and one or two of them have lived to see it. Where's a prophet who can outline the condition of motor cycling at the date when we publish our 2,000th number? I don't know how the rest of the staff propose to solemnise the anniversary, but I am trying to get hold of the wreck of a front-driven Werner and a trailer, and go out for 100 miles."



"One of the most consistently successful lady competitors—Mrs Hardee, who now uses a Matchless outfit, and proves that she can drive as well as any of the stronger sex."

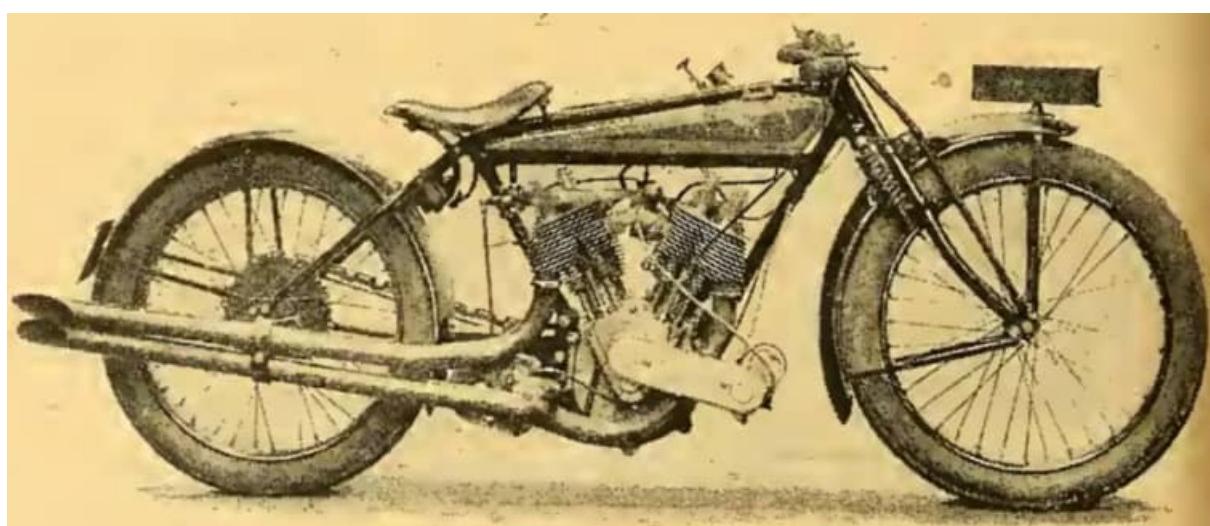
"HOW TO ATTAIN SUCCESS IN MOTOR CYCLE COMPETITIONS. Today, when practically all forms of sport are indulged in by women, it is surprising that more of them do not take up the sporting side of motor cycling. It is healthy, thrilling, intellectual, and is a sport that can be indulged in at all seasons. Considering the joy a motor cycle can give, it is not unduly expensive. The essence of all sport is achievement, and, like all other sports, to achieve success one must enter whole-heartedly into it. Neither must one be disheartened by failure. The ability to meet failures happily is the true test of a sportsman. In the majority of districts there are not sufficient lady riders to justify clubs arranging special events for them, and it is therefore necessary for ladies wishing to ride to enter into competition with men. These remarks are addressed to my sisters of the wheel, and to them I say: Do not make the mistake of expecting special concessions because you are a woman. You have no right to them, and remember that the average club man looks upon you as an interloper at first. He is a gentleman and will treat you with courtesy, but try to remember that if you make an "exhibition" of yourself he is sure to think something about 'a pack of women' spoiling the club events. If you decide to go in for sporting work, learn to ride a motor cycle first, and afterwards enter in the smaller club events. I had taken down and re-erected a motor cycle engine complete before I was permitted to have a ride on one. I had been riding twelve months before entering my first competition, and had been

riding in competitions two years before winning a medal...if you are to succeed as a sporting motor cyclist, you must put in many hours- of hard work, and not be discouraged by failures. You must understand- your own machine, and the final adjustments should never be left to anyone else. The effort is well worth while, for after your first win you will know indeed the joy of living.

Mary C Jennison.



From the left: "Mrs Jansen (Ner-a-Car), whose name appears most often of any lady motorist on the programmes of the big trials nowadays; she earned undying fame for her pluck in last month's six day event in Scotland. Mrs Olive Knowles (AJS), the only lady gold medalist in this year's Scottish Trials. Our contributor, Mrs MC Jennison, who has distinguished herself in speed trials. Miss Marjorie Cottle (Triumph), a lady who excels in freak trials. Mrs R Lord (Rex), who as Miss Muriel Hind was probably the first lady to take up motor cycle competition work seriously.



"Designed by E Poppe of the firm of White & Poppe, the big twin depicted above is intended solely for high speed solo work. The engine is the new 976cc JAP unit, which is giving excellent service in similar machines. A close ratio gear box is used in conjunction with a Brampton spring circle chain."

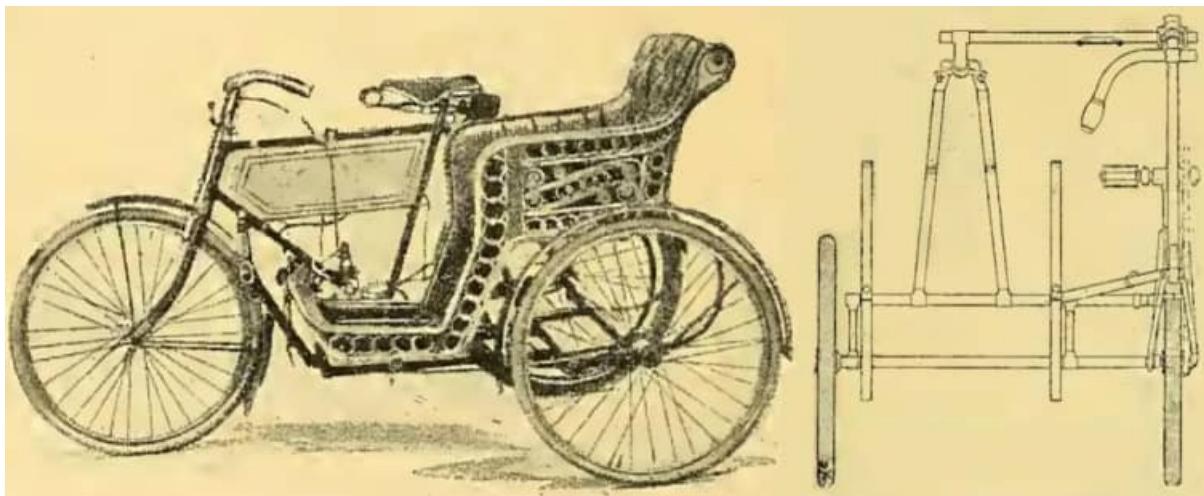


"On the road in 1904. For many years the two types of three wheelers shown—the sidecar and forecar—fought for supremacy, the latter in the end being completely discarded."

"Questions regarding the first sidecar. was it attached to a pedal cycle or motor cycle? Breaking down prejudice."

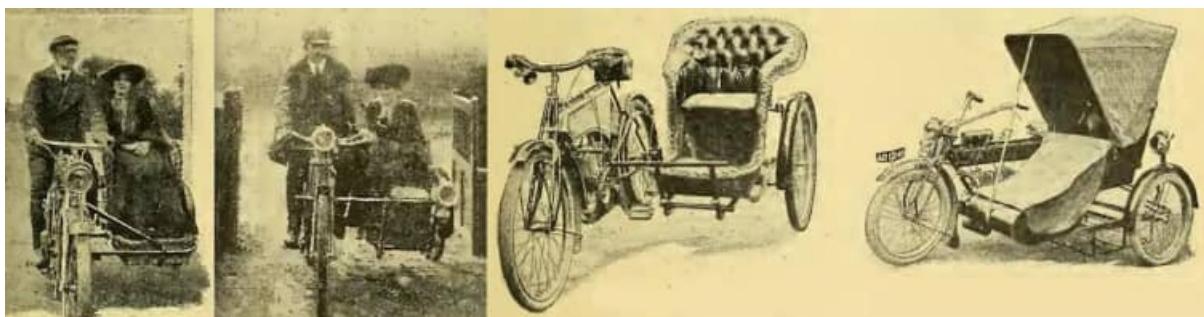
*'Ah, now side by side together we glide
O'er mountain, by valley, through sweet countryside;
Together in truth—he away there
And she, all forgotten, dust smothered in rear.'*

ALTHOUGH NOT EXACTLY A SLOGAN, these four lines of doggerel answered very well in 1903 as a battle cry—or trade cry, to be more accurate. They were published together with an illustration of the first sidecar ever advertised in *The Motor Cycle*. That was early in 1903, and the enterprising firm was Components, Ltd, Birmingham, the makers of the present-day Ariel. This company was astute enough to recognise that the sidecar would eventually oust the trailer and 'quad', and advertised their production as the Liberty' Sociable attachment, an appellation emphasising its companionableness more than the bare word sidecar would have done. The actual patentee, however, of this device was Mr WJ Graham, of Messrs Graham Bros, Enfield, who protected the design in January, 1903, and sold it to Components, Ltd. This sidecar was first shown on the Stock Exchange walk to



"The first sidecar ever advertised in *The Motor Cycle*—the 'Liberty' Sociable, marketed by Components, Ltd, in 1903. (Right) Plan of the sidecar chassis patented by Graham Bros in 1903."

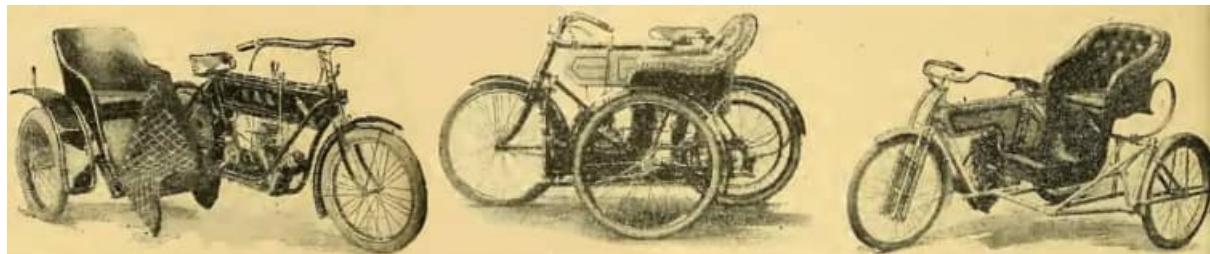
Brighton attached to a 3½hp Minerva. An interesting point in connection with the patent was that the idea came to Mr Graham in the midst of a sleepless night, and was immediately jotted down on paper. This negatives the probability of Mr Graham having ever heard of Mr Dan P Morgan, of Swansea, who claims to have attached a sidecar to a 1½hp Minerva as long ago as 1901, or of Mr Durant, of the LAD Manufacturing Co, Farnham, Surrey, who constructed a sidecar for use with a tandem pedal cycle as far back as 1888. Credit must go to the man who first thought of the idea, but greater credit to the men who conceived the same idea independently, and backed it up with business zeal and enterprise, for it was owing to their perspicacity that we benefit as we do to-day. Among these men stands Mr W Montgomery, who used a sidecar in 1902 and founded a sidecar business in those



From left: "A 1904 model, in which the passenger is exposed almost as much as the driver of the machine, as was the case with all the old sidecars. Attached to a 1903 3½hp Minerva, this Graham sidecar attracted attention at the first Stock Exchange Walk to Brighton. A Montgomery sidecar of 1903, a type that continued in use for many years. A 'wind scoop' on a 1909 Matchless. Messrs Collier & Sons were alive to the comforts of the passenger 13 years ago, as will be gathered from the illustration showing an extremely 'roomy' hood."

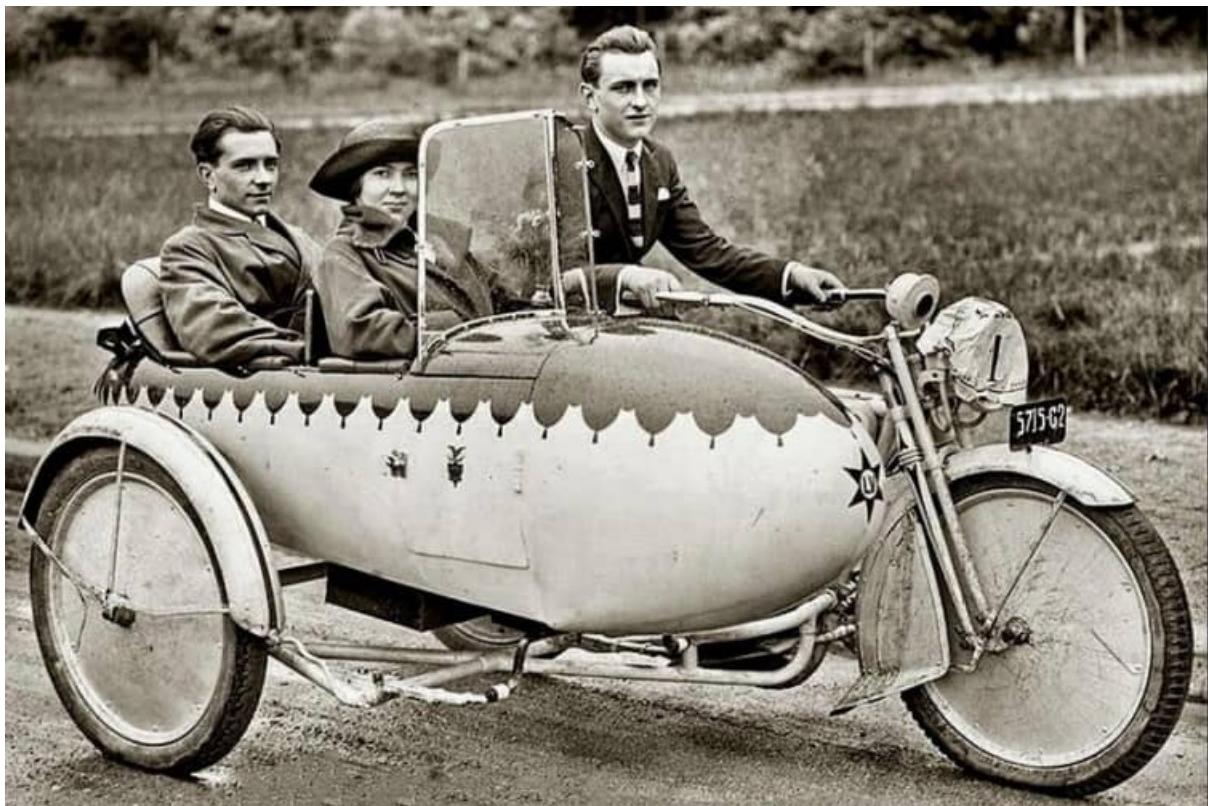
early days, strong in the belief that it was a sound proposition. When the old drawings and photographs are examined it can not be said either that the sidecar has altered fundamentally since it was first evolved. Of course, in comfort the modern body is quite a different thing, but the chassis design remains much the same as in 1903. Not until Alfred Scott departed from the beaten track with deliberate and clever independence did anyone show much originality in the design of a triangulated chassis. The fetish of detachability has, of course, kept designers to an

orthodox chassis design, but now that owners seldom detach their sidecars there is no excuse for adherence to old plans and methods, which make for inaccessibility.



From left: "Probably the first coachbuilt sidecar. It follows in design the wicker type popular at that time—1905. An experimental model with the sidecar wheel almost midway between the two cycle wheels. The first model of the castor wheel type, which became at a later date comparatively popular."

The most glaring instance of this is the fitting of the chain case on the near side of a machine designed solely for sidecar work. In spite of its undoubted advantages the sidecar was slow in gaining favour. The tricar and the 'quad' were usurped with no crashing of cymbals, and several years went by before the prejudice against the sidecar's unsymmetrical appearance was overcome. In July, 1905, *The Motor Cycle* gave the sidecar an 'extended trial in order to determine for its own satisfaction the most suitable form of attachment, and emphasised in its favour the matters of storage and freedom from side-slip compared with the trailer, and also the lower hp required to propel a sidecar compared with the power needed for a tricar: In conclusion the writer said, 'Altogether, it has answered all our expectations.' There is a certain amount of restraint in that favour, able summing-up which probably reflects the general feeling existent at that date, although we believe the writer was far more convinced of its ultimate popularity than many fellow motor cyclists were. From that time—July, 1905, onwards—sidecars entered the big trials, competing with the forecars, more than holding their own in spite of their 'un-mechanical' design. Compared with the three-wheeler, too, the sidecar outfit in those days was infinitely cheaper, and possibly it was that advantage, together with the talking point of 'quick detachability', that gave it supremacy in the end. It is certainly in a very strong position now."



Sadly I have no details of this 1922 combo but boy oh boy, what a beauty.

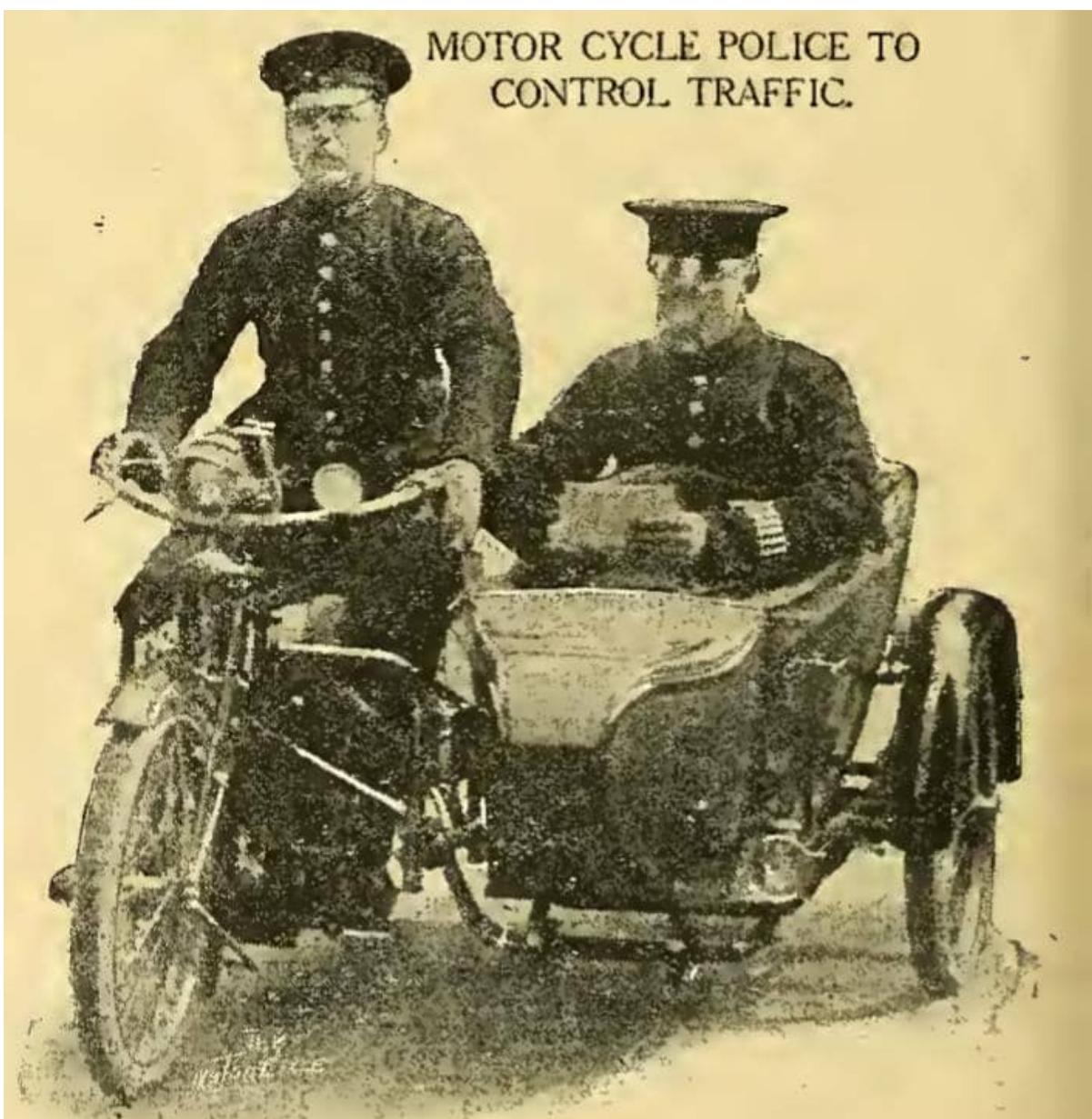
“Sir,—Having read ‘Ixion’s’ remarks on engines going ‘fey’, I would suggest that unless he means that the engines have a premonition of impending dissolution, the word applicable is not fey’, but probably ‘daft’. ‘Fey’ does imply peculiarity of action, but also includes the idea of approaching death.

SCOTSMAN, London, NW11.“

“Sir,—In the correspondence ‘About Heat’, if Mr. Brewster is desirous of accuracy, he should consider his statement ‘a refractive index cannot be measured if the body will not transmit the wave-length.’ Apparently ‘Brewster’s Law’ has escaped Mr Brewster’s notice. He will find it in Watson’s ‘Physics’, page 577. It is thus that the refractive index of opaque solids, eg ebonite, is found.

LH WAKEFORD.“

MOTOR CYCLE POLICE TO CONTROL TRAFFIC.



"Just at present the daily Press is strongly agitating for motor cyclist patrols to control unruly motor traffic, and, although the dangers of the road are being greatly exaggerated, the idea is sound. However, the Metropolitan Police already have Triumph sidecar outfits which are being used for this purpose, and a most favourable report on the efficiency of the scheme has recently been issued by the Commissioner. On the other hand, one shudders at the possibility of hordes of solo police motor cyclists on 70mph machines being released on the tortuous roads of Great Britain."

"TRIALS IN THE CHANNEL ISLES have a fascination and environment all their own, and early this month 54 machines were brought up to the starter for an 80-mile run for the ACU Cup in Guernsey, the isle where every road is a hill and every hill a corner. The riders were dispatched in pairs at one minute intervals. The first observed hill—Petit Bot—occurred at the end of 13 miles, and was composed of hard gravel to the first of five hairpins, all particularly nasty, along little more than a goat track. Two of the three lady competitors, Miss Niles and Mrs Mauger (Guernsey), fell on the worst bend. E Le Caudey (Jersey) also fell, but E Winterflood, M Slaytor (Guernsey), ST Blundell (Jersey), were all good. In the Talbot Valley a freak hill, The Niaux,

caused a thousand or so spectators to gather to watch the climbs. A Holland (654cc Coventry Eagle, Guernsey), E Pirouet (678cc Martinsyde sc, Jersey), P Mauger (499cc Verus), Miss Niles (348cc Wolf), E Winterflood (499cc Coventry Eagle, Guernsey), B Ellett (490cc Norton), EC Oldham (633cc Norton), E Charlton (490cc Norton), were all clean and steady in their attempts. Following a lunch interval at the western point of Pleinmont, a resumption was made with a climb up the ragged surface of a grass lane. Mrs E Oldham (550cc Triumph sc, Jersey) made a clean ascent here, but both S Peek (595cc Douglas) and E de Putron (633cc Norton, Guernsey) came off on the 1 in 4 portion. The Griffon hill gave trouble to F Touzel (499cc Rudge, Jersey), who konked out, and to E Le Maitre (293cc Connaught, Guernsey). Clean ascents were effected by T Le Cheminant (499cc Coventry Eagle), W. Blondel (348cc Coulson), A Gorman (550cc Triumph) and D Le Caudéy (550cc Triumph, Jersey). Pluck and sand must be in the make-up of a rider who can complete such a run on a 1910 fixed geared Win-Precision—a feat accomplished by EH Le Brocq (Jersey), and almost equalled by C Millard (Guernsey) on an old two-speed Clyno two-stroke. The home riders were very clean on hills, but in the majority of instances too early in controls. Steadiness sent the ACU Cup to Jersey. Results: ACU Cup and gold medal: E Pirouet (678cc Martinsyde, Jersey). Silver medals: A Holland (654cc Coventry Eagle sc, Guernsey; B Ellett (490cc Norton), E Le Brocq (1913 348cc Douglas), HL Cutbrush (633cc Douglas sc), all Jersey. Ladies: first, Miss N Niles (349cc Wold, Guernsey)."



L-R: "An American Excelsior at Pleinmont, a typical Guernsey country lane. Mrs P Mauger and Miss N Niles, Guernsey's two most accomplished lady motor cyclists."

"DISCUSSION IN MOTOR CYCLE circles is once again centred upon the subject of misleading horsepower ratings. And again the suggestion that 100cc should be regarded as the standard horse-power unit for normal purposes has been advanced. The proposal is a practical one and can be put into effect without trouble by anyone acquainted with the cubical capacity of the cylinder simply by placing a decimal point in front of the last figure, but two of the capacity figure. Thus a 249cc engine would be rated at 2.49hp, and a 499cc engine at 4.99hp. That the suggestion is not a new one does not detract from its value as a ready means of comparison, but we may remind readers that it emanated from the staff of *The Motor Cycle* as long ago as 1912. In our issue of January 18th in that year we published an article on the subject, in which it was contended that

'every maker can and does make an engine which in the usual motor cycle sizes, is capable of giving 1hp for every 100cc capacity, and that in ordinary touring trim."

"LAST YEAR SOMEWHAT INCLEMENT, WEATHER spoilt the North London MCC Rally at Hendon; this year it was almost too hot. Nevertheless, the attendance at the aerodrome on Whit-Monday was quite good, although, considered in relation to the number of motor cyclists in London and the Home Counties, it was very disappointing. Perhaps Hendon is too near the Metropolis for the average motor cyclist who is a great traveller and ignores distance, especially when favoured by a long week-end like Whitsuntide. This theory is confirmed by the fact that the Wakefield and District MC&LCC easily won the Challenge Shield presented by Mr AJF Beaurein for the club travelling furthest to the meet, the mileage figure, of course being multiplied by the number of members present. Wakefield gained 2,958 points, and the Connaught MCC, with a score of 2,478, was second, gaining the Triumph Challenge Cup (presented by the Triumph Cycle Co). Gymkhana events occupied the afternoon and evening, including tent-pegging, apple bobbing and a bun-eating competition....What struck the North Country visitors most was the number of old crocks present; but our representative was even more impressed by the popularity of Rudge-Multis and Connaughts. They were as numerous as insects on the unmown grass. The usual competition for the most ingenious 'gadget' provided an unusual denouement; it was won by J Dennis for a nail and copper wire repair to his gear box as a first aid measure to his Royal Ruby on his way to the rally—a case of turning misfortune to good account if ever there was!"



From top left: "Fitted with a spring hinge and clipped to the peak of the cap, the non-inflammable celluloid eye shield is a useful substitute for goggles. (Brown Bros, Great Eastern Street, London, EC). When not in use the eye-protector of the Pidko cap folds flat in the peak—Norris & Pidcock, 27, Chancery Lane, London, WC2. Goggles are incorporated in the peak of the Bednal Helmet, which otherwise follows RAF lines—H Bednal, 55, Sutton Crescent, Walsall. Something new in weather protecting devices for the motorcyclist is the Bristol face screen and chest apron, the whole being carried on a spring strap on the rider's waist. It is easily detachable and weighs only 18oz—The Bristol Sidecar and Motor Co, 11, Stokes Croft, Bristol. A

device for those who dislike goggles, but desire protection for the eyes and face; the illustrations also show how the 'Phace' screen is carried when not in use—Messrs Coupe Windscreens, 74, Lennox Road, Portsmouth, are the makers."

"THERE ARE, IXION REMARKED, "several very obvious objections to goggles. They make one look like a cross between a deep-sea diver and a bullfrog. They are always getting broken. They are uncomfortable, unless the fit is perfect and the quality good. They soon get dusty inside. They dim with condensed moisture when first adjusted on the face. It is now alleged that they hamper hearing. So it is not surprising that a variety of celluloid vizors are on the market. Within the last few months I have tested three different devices of the kind. The 'Phace Screen'—comfortable; unwieldy; and hostile to—tobacco and alcohol. The Pidko cap—a good tweed cap, with a celluloid vizor which folds into the peak when not required for use. The CGP screen—a light, cheap, unframed mask, which rolls up into small compass for the pocket. All of these gadgets afford as good protection as goggles. The two small devices are perfectly sightly. None of the three are breakable. Yet I cannot vote heavily for them as against goggles, for the simple reason that celluloid imparts a faint yellowish tinge to the landscape, and scratches so easily. If somebody will invent a celluloid which is absolutely colourless and does not scratch, he will do us a good turn and line his own pockets most opulently...In the meantime I take glass goggles when I am out for speed, and wear a Pidko cap on ordinary occasions."

COLONIAL ROADS ARE DISCUSSED by a Bulawayo correspondent—AF Healey—who writes: "I noticed in a copy of The Motor Cycle that riders were clamouring for a less Colonial section in 'the Six Days'. The so-called Colonial section is better than some of our town roads. Roads! When you have to get off every few miles (or rather hundred yards) and scrape the mud from the wheels, and get stuck up to the hubs in Rhodesian mud, riders at home would have reason to complain; but it is an everyday occurrence here, during the wet season. Then, again, watersplashes. We have watersplashes here, not a few feet wide, but a hundred or more, and deep at that. I owned a well-known 4hp single a year ago, and was let down through water getting into the magneto. Why don't manufacturers fit magnetos behind the engine, such as the Sunbeam and Rover? It costs no more, is neater, and more suitable for overseas conditions. At present I own an ex-WD 6hp AJS. The sidecar is home-made, and cost £7 10s. It is all wood, and took six weeks to make, working every now and then in my spare time."

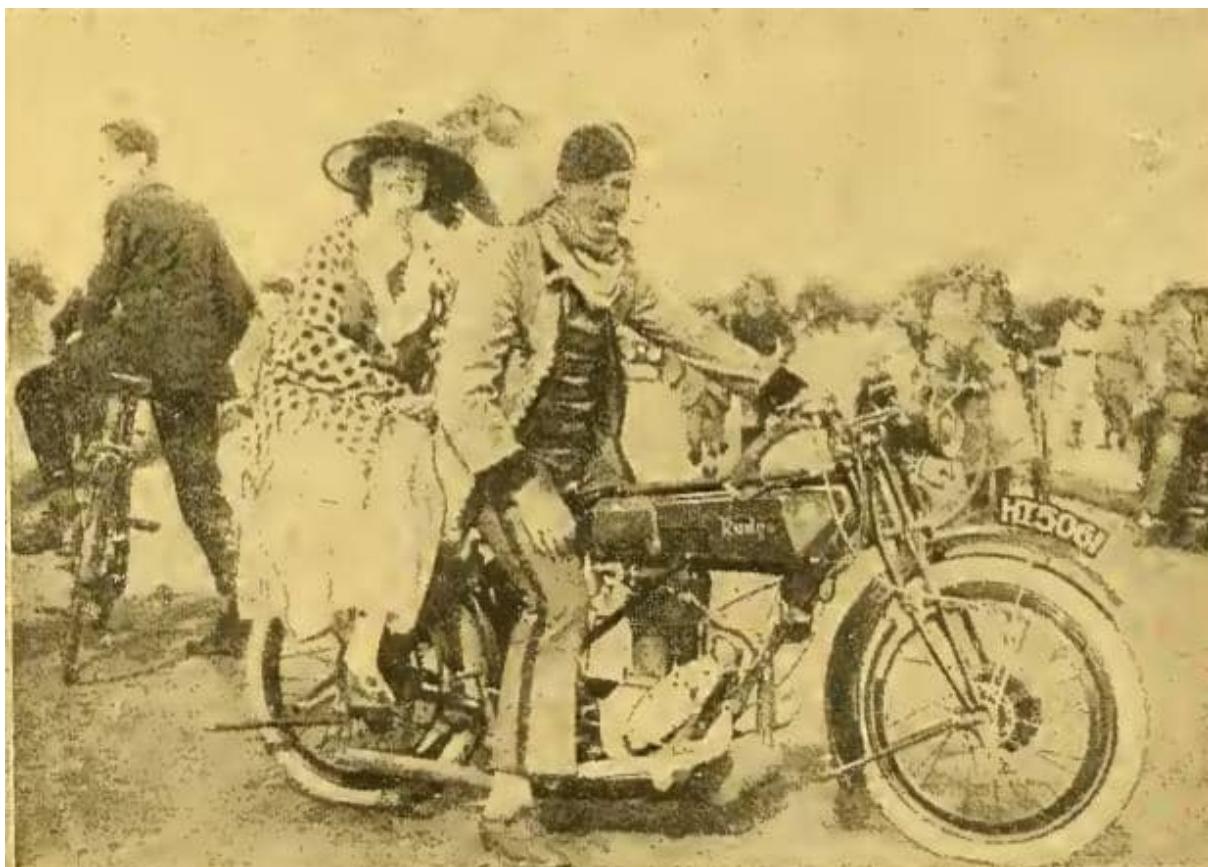
ONE OF OUR AUSTRALIAN correspondents comments upon British motor cycles for service in New South Wales: "There are 97,000 miles of roads in NSW, and of these 36,000 miles are in their natural state—unmade and un-metalled. You can see there are some 61,000 miles formed which, although not all in good condition, can be used. In NSW alone there are 11,066 motor cycles actually in use. There are many British machines eminently suitable for general purposes, but which are unobtainable here. Manufacturers do not advertise their prices for overseas sales. If they advertised the export price one could easily calculate the final cost. as shipping charges, etc, could be found out for inquiring. Personally, I have written to three prominent manufacturers of utility mounts in England with the following results: No 1 replied that as his home business exceeded his manufacturing capacity, he was. sorry to be unable to quote for an overseas order. No 2 forwarded no reply although the letter was addressed as per advertisement in The Motor Cycle. No 3 answered to the effect that they had a representative in Melbourne and that any transaction would have to be through him. Writing to this gentleman, he answered that he would have to enquire current price from England, and that it would be impossible to obtain a machine before six months unless he cabled. Should I care he would cable, provided I paid the cost of the cable whether I placed the order or not. Does this

encourage one to get a British machine when one can get immediate delivery of any American machine?"

"THE LUCAS ELECTRICAL CO is to be congratulated on producing a twin two-spark magneto which withstood the searching test of the TT on the Scott machines. It is probably the first time that such an instrument has stood up successfully to such a gruelling, and this reflects pleasantly on the state of the British magneto industry."



"That the French are masters at carnival decoration is generally admitted, and this snapshot confirms the statement. The elaborate device depicted won a prize at the recent Fete de Narciss at Montreux."



"The 'Coster and Gal'. Mr and Mrs Le Brun (499cc Rudge-Multi) who won first prize for solo mounts in the Fancy Dress procession organised by the Bristol MCC on the recent Hospital Saturday."

"TWO WHEELS FOR SPORT, three for safety, and four for swank", writes Ixion, in chiding an old motor cyclist for abandoning his earlier love for a motor car."

"SIR,—AS A PROSPECTIVE ENTRANT in the Amateur Road Race. I read with considerable disappointment that the ACU had refused a permit for this event. By so doing, that autocratic body would appear to have signed its resignation as far as the control of the sport among private owners is concerned, and to me it seems that the obvious sequence should be the formation of a purely amateur association. Are amateur motor cyclists less enthusiastic than amateur golfers or footballers? Unless they can muster the energy to organise their pastime on clean, businesslike lines, the answer must be in the affirmative, which I am sure is wrong. What do fellow readers think?

RIC-UMPH, London WC2

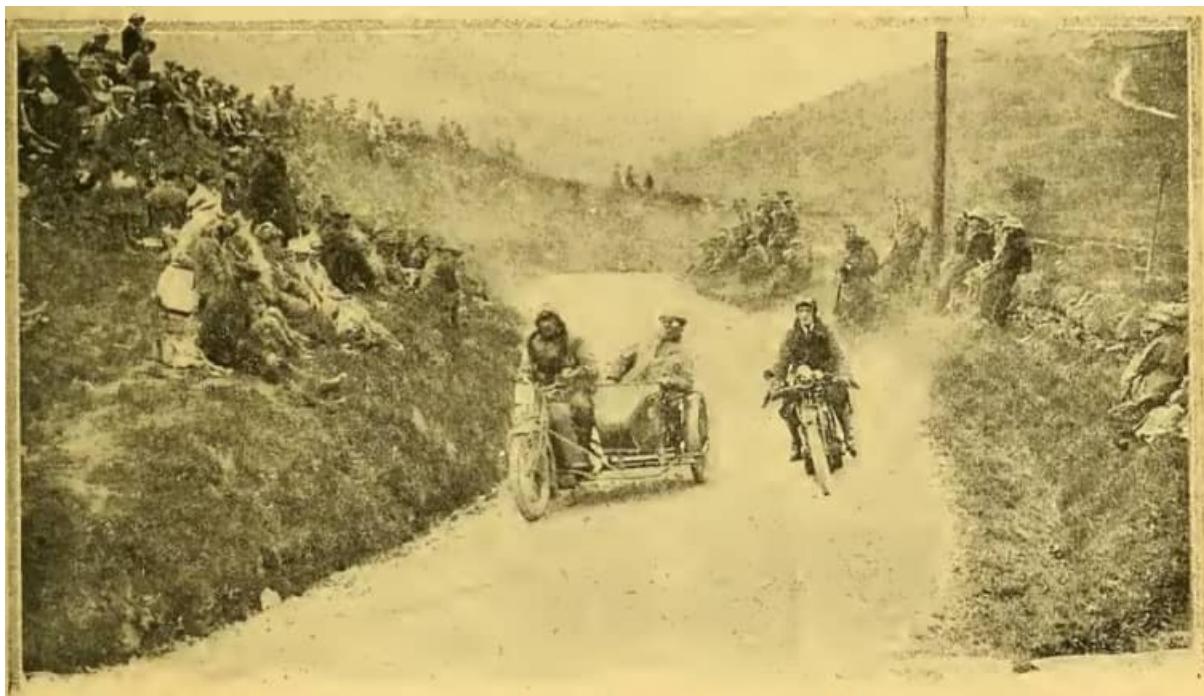
"I HAVE BEEN SWOPPING YARNS this week with an eminent member of the trade, whose memory goes back about as far as my own," Ixion revealed. "We got to the point where, after tremulous solo adventures, we dared to invite the one and only fair to accompany us. He hired a push-bike trailer for a run from town to the sea. The coast was reached well enow, as the poets put it. But the return journey was arduous. The automatic inlet valve took a dislike to its cotter and spat it out into the road. At that date there were no such things as garages, and it is doubtful whether a spare cotter existed in the British Isles; moreover, even the blacksmiths had downed tools for the day. So he borrowed a hairpin from his passenger. It lasted two miles. He borrowed another. And so on. The demure Victorian maiden who started out with him was transformed into rather a saucy, stagey flapper before the trip ended. Later on the accumulator gave out.

Also the spare accumulator. Such trifles did not worry us in 1903. He woke up an electrician, bought some dry cells, caused his passenger to nurse them on her lap, and connected them up from her lap to the coil under the bicycle tank with some six yards of bell-wire. In fact, he felt rather more comfortable on this improvised ignition; for the trailer connection was a thought dickey, and so long as the engine went on firing he knew the trailer—and its contents—were still there."



"At Hendon last Friday evening. This year the start took place in much less picturesque surroundings, and public interest was naturally less pronounced than when the competitors were dispatched from Ye Olde Gate House at Highgate."

"IT HARDLY SEEMS NATURAL to start the London-Edinburgh run from Hendon, which is not—and does not want to be—London. Gone is the old glamour of starting from Highgate in that fine wide open space thronged with people beyond the Gate-House Inn. This year the fates and the Metropolitan police ruled otherwise, and the start, on Friday night last, took place in the open country outside the premises of the London Country Club, the hospitality of which, extended to members and officials, was highly appreciated... Acetylene lighting held its own. Dissolved acetylene cylinders were used in a number of cases... We noticed a new ohv flat twin Brough with a short wheelbase frame, saddle tank, and unit engine and gear box, which was being piloted by FW Stevenson. The new Hagg tandems were fitted with Barr and Stroud single sleeve-valve engines and ran very quietly. Hugh Gibson (Raleigh) was amongst those who had returned from the Isle of Man in time to take part in the event, and H Glendinning turned out on one of the new 976cc JAP-engined Zeniths, with three-speed gear and all-chain drive. The inseparable friends, Jacobs and Le Grand, now united after the war, were riding identical Rex-Acme sidecar



"On the worst portion of Kirkstone Pass, as will be gathered from the crowd, WH Hardman (993cc Matchless sidecar) and a non-competitor."

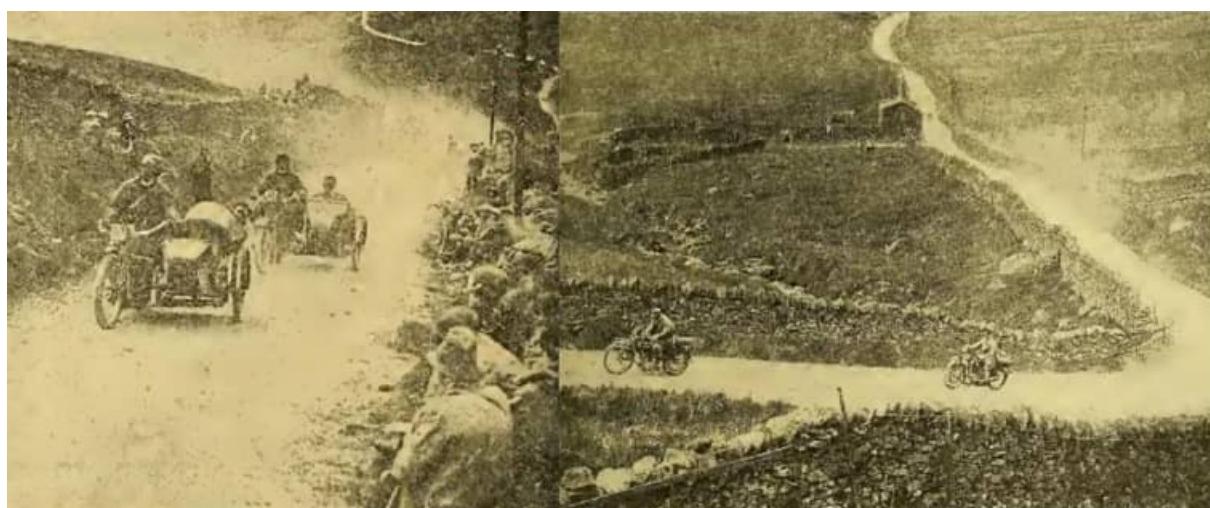
outfits, both fitted with Wattalite generators...From Hendon to Barnet the roads were quite good and adequately marshalled. Heavy rain fell in the neighbourhood of Barnet. After the stifling heat of the preceding day the evening's run was pleasant, and the well-tarred roads prevented dust from becoming a serious trouble, though the later competitors complained slightly on this score. By four o'clock in the morning the weather had become chilly, and passing through the Trent Valley it was bitterly cold...Near Grantham CC Labin (678cc Martinsyde) experienced a mysterious fire, but fortunately neither he nor his machine were seriously damaged, and he was able to continue. Muskham Bridge, north of Newark is in the process of being widened, and to prevent competitors driving over the edge and into the Trent observers had been posted to give due warning...Just short of Doncaster GE Cuffe (269cc Metro-Tyler) broke a magneto chain, but by a stroke of luck he had a spare chain with him, and was under way again in a few minutes. BN Thomas (348cc Hagg tandem) experienced continuous lamp trouble,



From left: "Judging by their nonchalant riding attitude, the hairpin on Kirkstone gave this trio no trouble whatever; J and A Stanger (538cc Stangers), followed by LE Chirney (348cc Beardmore-Precision). Martinsydes of varying capacity on the hairpin; AA Symes, riding a 678cc model, and EH Gifford on a mount of 496cc capacity. As was the case in the 1920 London-Edinburgh run,

when Kirkstone Pass was included, a big crowd gathered at the summit to watch and criticise the competitors; RL Richardson (345cc Alecto) followed by PA Hopkins (348cc Ivy)."

and used a hand torch for a considerable distance. Fortunately, however, the period of darkness was short, and even the earliest numbers were able to extinguish their lamps at Doncaster...With a chill head wind but a bright morning the competitors made for the breakfast stop at Ilkley, and experienced poor road surfaces for the first time for a stretch before that town. At the Middleton Hotel, Ilkley, all the arrangements for the riders' comfort had been admirably carried out, and the sporting proprietor had himself superintended the lighting of the kitchen fires at 3am...JG Hann (876cc New Imperial) had the misfortune to run out of petrol within sight of the check, and since he walked into the control without his machine he was behind time. Had he pushed his machine in he would have saved his gold medal. By 7.30 the first men were once again ready to continue their long run northwards, and good roads were the order of the day. Not a few took things easy, and near Skipton we passed an Ariel team resting by the roadside, while George Brough was sitting on a sunny wall discussing matters with a friend. In Kirkby Lonsdale competitors were diverted from the main road and passed on to Kendal via Old Hutton, an excellent road, though rather dusty in places; thence onwards to Windermere and Ambleside, and so to the long steep ascent of Kirkstone Pass. Perhaps the steepest pitch of this climb occurs on leaving Ambleside village...finally, after two sharpish corners, a long grind of nearly 1 in 4, known as 'the struggle', the summit being 1,476ft above sea level...G Lanford (OK Junior) found the long grade too much for his engine. Hugh Gibson (Raleigh) toured up with his hand on his hip, and C Labin (Martinsyde), H Lane (Levis), V Belfield (ohv Triumph), A Symes, and E Gifford, on Martinsydes, made splendid ascents. Next came R Purnell on his little JES, the tiny engine purring up the steep grade and running well within its power. This was quite one of the most noticeable performances of the day...B Fellowes, on the veteran De Dion, made a clean climb with not too much in hand...After crossing Kirkstone there followed a picturesque drop into Patterdale requiring care, and thereafter delightful Lakeland scenery was enjoyed until the outskirts of Carlisle were reached. Here in the open space outside the County Hotel competing machines were marshalled in most orderly form...Here we learned that Vidler (Triumph) had seized his engine near Otley, and Farmer (Zenith-Bradshaw) had collided with a competing sidecar and suffered injuries...On to Gretna Green, one observed that



"High-powered twins on Kirkstone. JS Biss (998cc Indian sidecar) and SS Debenham (1,100cc Campion sidecar). (Right) A slight idea of the long climb up Kirkstone is conveyed by this photograph taken at an elevation, showing G Wray (499cc Triumph) and JJ Sykes (596 cc Sunbeam) making an effortless climb."

the enterprising AA had erected a yellow banner over the border bridge 'The AA Welcomes the MCC'. Regular running was the order over magnificently surfaced tarmac roads, undulating but slightly...mostly when groups were overtaken they were chatting or smoking cigarettes, trouble being rare. Tea was arranged at Moffat, where the usual crowd had collected. Small boys found amusement in collecting the empty oil tins, and had a fine array with useful dregs for their bicycles and scooters. A magnificent climb over the mountains followed after Moffat. There was no risk of losing the way; apart from well placed arrows checked by G Pettyt, WH Wells, the captain, made sure of things by carrying small sweet bags full of blue dye which, thrown heavily on the ground, produced a first rate line denoting the route...Near Crook Inn, White (Sunbeam) was passed by the roadside with his front chain case off. Through Liberton to Edinburgh crowds lined the route, a large number of owners of cars and motor cycles of all descriptions having motored out of the city for some miles to meet the dusty and tired riders. Most complained of smarting eyes, some going so far as to carry eye lotion in order to bathe their eye at the controls. Notwithstanding, a magnificent and enjoyable run was the general verdict, and from a large percentage which succeeded, some were asking if the MCC would willingly dole out so many gold medals, or whether they would make the event much stiffer next year—something to compare with the Eastertide London-Land's End Trial. Out of 245 starters 219 completed the journey. Gold medals, 192; Silver, 24; Bronze, 3.



"Great enthusiasm was shown by the public on the arrival of the London-Edinburgh competitors at the Scottish capital. Far bigger crowds gathered than were seen at the start at Hendon."

"ALTHOUGH HE FOUND THAT the greater portion of the London-Edinburgh run, through which he drove a Brough Superior sidecar, was 'monotony itself', WA Fell Smith has described for us this extraordinary incident that befell him between Leadburn and Penicuik. 'On approaching a cross-roads where several people were standing,' he writes, 'my passenger pointed to a very large hare which was crossing the field to our left. We reached the corner of the field simultaneously with the hare, which ran into the road, apparently jumped to avoid the sidecar wheel, and struck my passenger full in the face with sufficient force to knock him senseless for

two or three minutes! Fortunately no serious damage was done beyond a broken pair of Triplex goggles and a black eye, and after a 'wee drap' of whisky had been administered by a kindly onlooker we were soon able to proceed. The only thing that really worried my passenger was that the hare wasn't killed for him to take home as a souvenir!"

"SIR,—REFERRING TO THE above incident reported in last week's issue of *The Motor Cycle* by Mr WA Fell-Smith, whom I had the pleasure of accompanying as the passenger he mentions, I would like to state that, extraordinary as the accident may appear to be, it is hard fact.

Personally, I found it such a very hard one and, driven into my face with so unexpected and considerable force, it was impossible for me to argue or withstand it...Mr Fell-Smith and those who have seen the goggles I was wearing, are firmly convinced that it is solely due to the fact of their being Triplex that I retain my sight, and as a measure of gratitude that I still retain full vision I felt I could not do less than utter a warning word to all motor cyclists to take proper precautions in this part of their outfit. May I trespass a little further in order to record my appreciation of the very efficient services rendered by Patrol Bull of the AA? (With Hares and Bulls running about I cannot agree that the run was monotonous.)...Tae the kindly Scots leddy wha produced the whisky Ah wud also tender ma verra sincere thanks—twice ower—aince for the first drink that brocht me round and again for the second which by then Ah was in ma richt senses tae enjoy. Aye, it was guid.

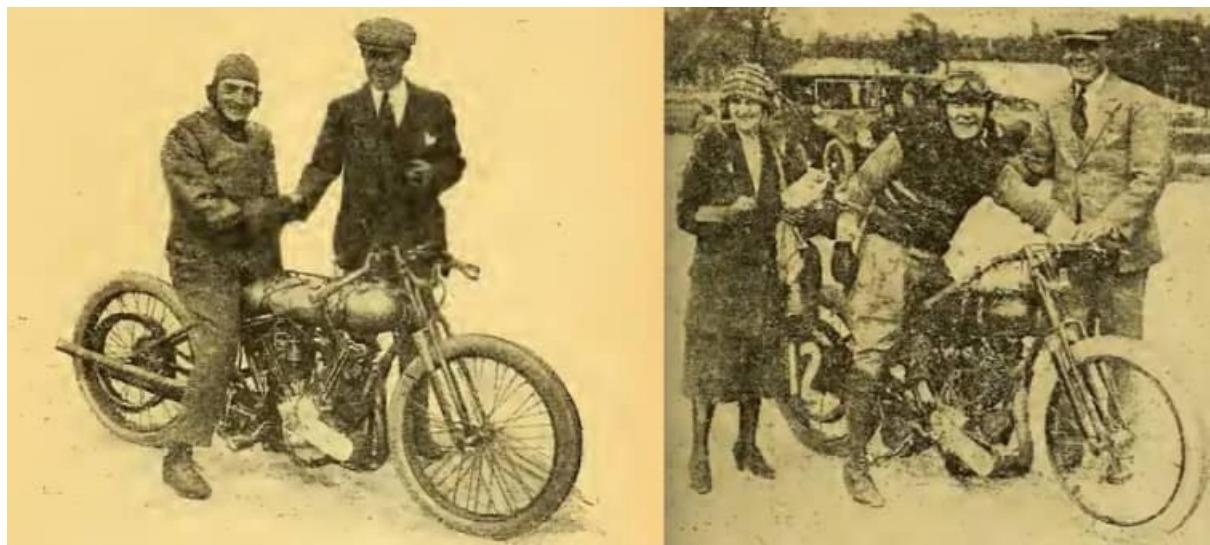
GEO TEMPLE.



LADIES IN RELIABILITY AND SPEED EVENTS. Elsewhere in this issue there appears an article on competition riding for lady motor cyclists, but already the sport is more popular with the fair sex than many realise. These attractive pictures are of (left) three ladies in an Exeter trial and (right) two in South Wales speed trials.

"IF AS WE ARE TOLD, the summer of 1922 is going to be a repetition of last year's, the motor cyclist will more than ever have cause to be pleased with his choice of a recreation. Not many pastimes share with motor cycling its attractiveness on a broiling hot day, not only as a means of reaching the shadiest country nooks or the ever-refreshing sea, but in itself as a way of keeping cool. When the temperature is high there is nothing to compare with a swift rush through the air on a motor cycle. True, with the heat comes the dust, but off the beaten track the nuisance is seldom very noticeable, and a good pair of goggles provides a ready and efficient antidote. Incidentally we fear that the average motor cyclist is inclined to minimise the importance of this latter item of his equipment—very false economy indeed. On the whole the motor cyclist will be the last to grumble at the continuance of a heat wave or drought of the severity likely to be experienced in these islands."

IXION WAS LESS THAN IMPRESSED WITH THE TRADE: We all notice that motor cycles have fallen in price since 1919. One economy adopted by most firms is the No Credit stunt. I have just learnt it to my cost. The other day my stand wilted like a wax candle in August, and simultaneously I required a peculiar washer, unobtainable except at the factory. Having been a customer since 1906, and knowing many of the factory staff intimately—not to speak of my eminent position in motor journalism (ahem!)—I presumed on all these things to order a new washer without enclosing the dibs (didn't know the cost) and to ask for a new stand to be forwarded instanter, instead of waiting till they had microscoped the wilted article and satisfied themselves that it was super-heat-treated by a tight mechanic, or something of that kind. Not a bit of it. For seven long days I watched the post, and finally there arrived the coldest of formal notes promising to dispatch a new washer on receipt of 3d, and guardedly indicating that a new stand might or might not be forthcoming after their laboratory experts had done their what-d'ye-call-it on the old stand. I feel so small. I have meekly forwarded 3d. For the nonce my machine rests with one footrest on an inverted flower-pot in the garage. And I had thought I was a small somebody. So you can guess what you'll get, dear ordinary reader."

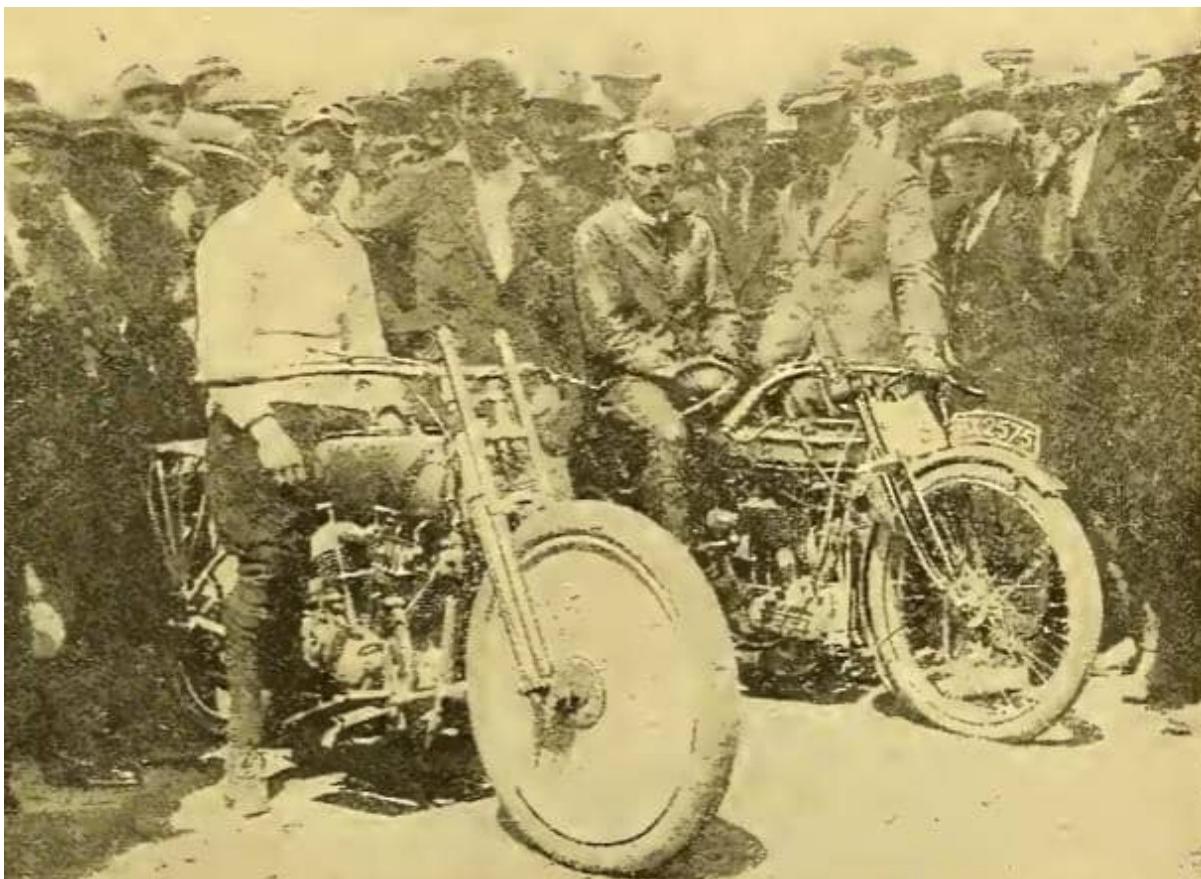


"For many years Col RN Stewart has been a regular competitor at Brooklands, and, if his easy win in the recent South Midland Centre meeting is any criterion, his new mount, an eight-valve Anzani-engined Trump, should cause his name to occur with some frequency among future prize-winners. Mr HH Hagens, the designer of the power unit congratulating the successful rider. (Right) The Duke of York's rider, SF Wood, who won the 5-Lap Solo Handicap during the BMCRC Members' Meet at Brooklands on a 994cc Trump-Anzani. His speed was 86.12mph."

THE BLUE 'UN PUBLISHED a selection of average prices culled from its extensive classified advertising pages. In the 'Below £30' section prices ranged from £19 for a 2½hp Enfield to £27 10s for a 1914 vintage 3½hp Rudge Multi. At the other end of the market, £140 upwards, there was a year-old 8hp Brough Superior combo and, most expensive of all, a 1921 7hp Beeza combo.

IXION REPORTED ON THE LIKELY cause of runaway Rudes: "Of late our columns have contained assorted communications anent the curious manner in which certain Rudge engines behave, travelling at one moment like perfect little ladies and at another like infuriated buffaloes. Various amateur physicians diagnosed the symptoms as being due to mountain air, temporary relief of high-compression ratios by fragments of carbon, and the like. At last a prophet has arisen in Israel. I haven't a Rudge at hand at the moment, so I cannot verify his

theory, but it strikes me as far more plausible than its rivals. From time to time, so runs his rede, Rudge's have modified their inlet valve springs and domes in sundry petty respects. If you happen to put a new spring of a certain type on a dome of a certain type, the spring may find some difficulty' in bedding down dead true around the valve. In that case its normal working attitude may be a thought cock-eyed. The valve stem will bind in its guide a little; possibly the valve may not even seat perfectly. Super-rudging will be impossible under such conditions. Anon, perhaps when the tail of the spring chances to work round the dome, the spring may temporarily become axially concentric with the valve. Extra hp will then be available, disappearing again if the spring once more emulates the leaning tower of Pisa. Sufferers please verify and report."



"At the conclusion of the 50-mile Welsh Speed Championship Race on Pendine Sands, F Bush (998cc Harley-Davidson) and Dr Lindsay (490cc Norton), respectively first and second men home, surrounded by an interested crowd of spectators."

"I HAVE RECENTLY FITTED a Best and Lloyd mechanical oil pump," Ixion reported, "and have finished for ever with the adjustment of drips, the watching of miles on my speedometer, the anxious ear cocked at the sound of the engine. I just see that there is plenty of oil in the tank, and then—well, I just ride. When the toy was new I found a certain fascination in watching a fat little splodge of Summer *Huile de luxe* eject itself every few seconds from the downturned pipe, and slide across the tiny tilted basin to the hole leading to my engine. But now I know that the splodge never fails to appear when due, I forget all about such mundane matters as lubrication, and let my thoughts wander to the scenery or the bobbies or the latest *her*. The engine appears to prefer this regular ration to the boa-constrictor regime of alternate gorges and fasts dictated by a hand pump and my oil bill looks like being appreciably smaller, for since I know what I am doing, I no longer over-lubricate. Of course, the critical mind of the professional journalist is

never quite satisfied. These 'stick on' pumps must necessarily be mounted in somewhat exposed positions, and I suppose that some day I shall neatly wipe the pump clean off the engine when I am cutting a kerbed corner too fine. So in theory I should prefer a pump designed as part of the engine and tucked out of harm's way."



"The motor cyclist who carries a camera on his jaunts certainly adds to his pleasures by obtaining records of his journeyings, but possibly the artist's pleasures are even greater, for the slightest of sketches carry more meaning—to the artist—than the best of photographs."

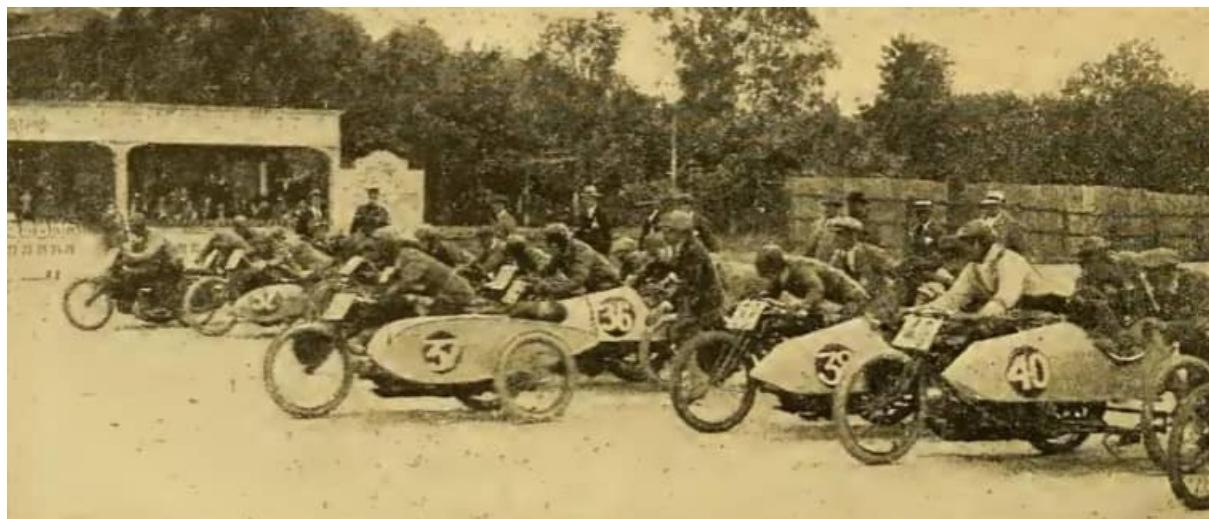


"A fine group of old world buildings, rich in historical associations and beautiful in their picturesque setting. The Square, Wells."

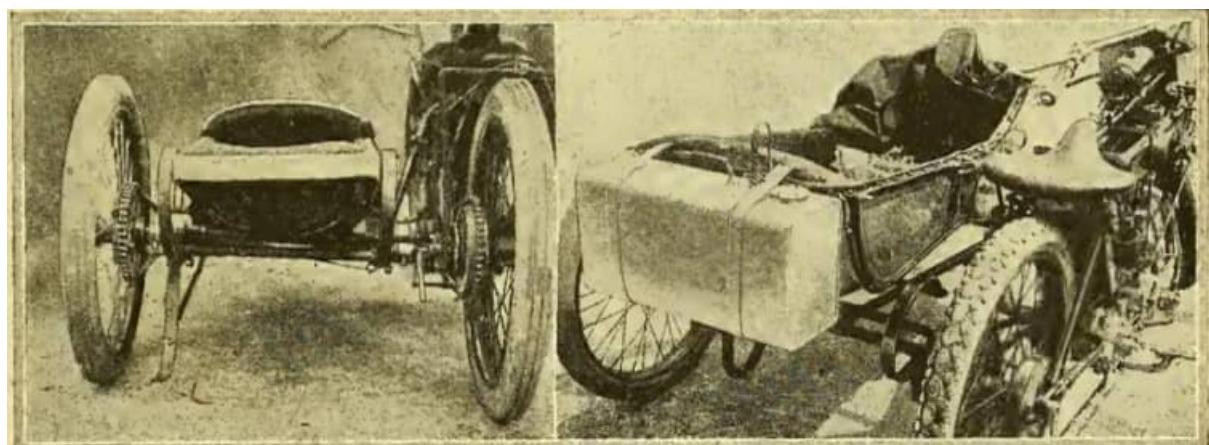


"FULL OF INCIDENTS, THOUGH SOMEWHAT TEDIOUS to watch and difficult to follow, the 200 miles sidecar races held by the Ealing & DMCC resulted in the beating of several records...There

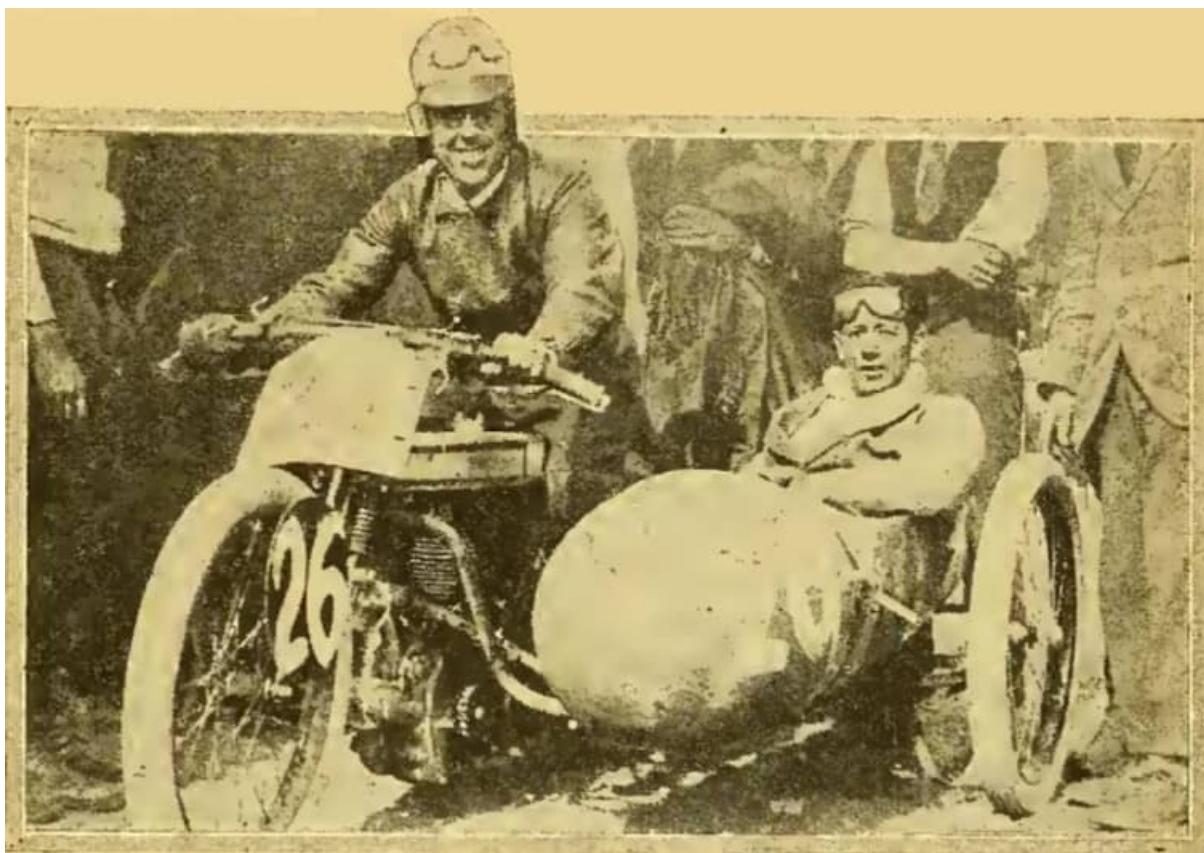
were really three separate events in all, the 350cc race (sidecars painted blue), the 6C0cc race (sidecars painted red), and the 1,000cc race (sidecars painted yellow)...all machines had to be equipped with special skids so as to support the outfit in the event of the sidecar coming off...CG Pullin's 346cc Douglas brought him records and a splendid victory by nearly half an hour in the 350 race [at 51.76mph]; Bridgman's (499cc Indian sc) in the 600cc race by over three-quarters of an hour was a brilliant success [at 53.92mph], but Le Vack's (998cc Zenith-JAP sc) brave fight against DH Davidson (998cc Indian sc) provided the most excitement of the whole meeting...Le Vack finished second, 1min 38sec behind the winner, who carried off a second Indian victory."



"Off! The big twins of the 1,000cc class crossing the starting line."



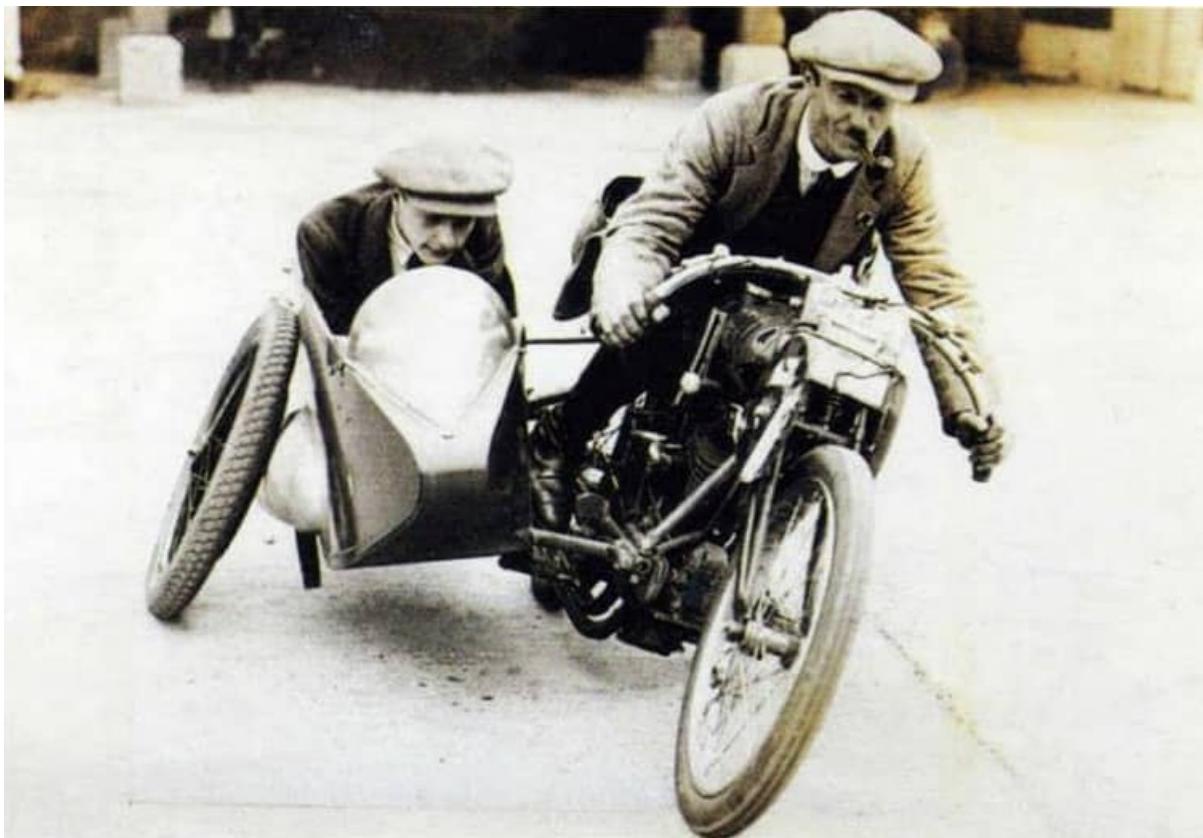
"In order to maintain contact with the track when passing over the bad portions, FW Dixon (989cc Harley-Davidson) fitted a drive to his sidecar wheel from the countershaft. Observe also the skid which was required by the regulations governing the race. (Right) Capt LF Peaty, obviated frequent stoppages for petrol by fitting this big auxiliary petrol tank. The fuel was supplied to the motor cycle tank through the drain tap by a pressure pump fitted on the sidecar and worked by the passenger."



"GH Tucker who, on his 588cc Norton sidecar, won the recent 600cc 200-mile sidecar race at Brooklands, and at the same time broke the 200-mile record in Class F. His protest against disqualification was upheld by the committee, and consequently EA Bridgman (499cc Indian sidecar), who was awarded the race in the first instance, takes second place."

"I HAVE HEARD ASTONISHINGLY FEW adverse opinions on the holding of a sidecar TT. Nearly everyone is of the idea that the race will ultimately benefit sidecar design. It may. But I shall be surprised if the lessons learned will help very greatly in improving the rigid touring type chassis, for, in all probability, competitors will turn to the flexible chassis. Sidecar connections, the chassis itself, sidecar wheel bearings and spindle, the forks and front wheel spindle of the machine will be tested to the utmost on the abrupt bends, and weaknesses will most certainly be revealed before many laps are covered. It goes without saying, too, that engines, gear boxes, and transmissions will be subjected to strains that they have never yet undergone, and that is saying a good deal. Brooklands tells us a lot, so does the 'Six Day's, but up to now there has been no opportunity of running an outfit at the speed of 50mph uphill and down, round acute bends and over humped-backed bridges for hours on end, and that is why the Isle of Man course will reveal more weaknesses than track racing ever does. It will be a nightmare ride for many. On the question of danger, I am emphatically with Mr Norton, and many other experienced racing motor cyclists, including FW Barnes, TC de la Hay and JE Greenwood, who agree that the greatest restraint will have to be exercised, and that none but the most skilful and capable should be allowed to compete."

by FRIAR JOHN



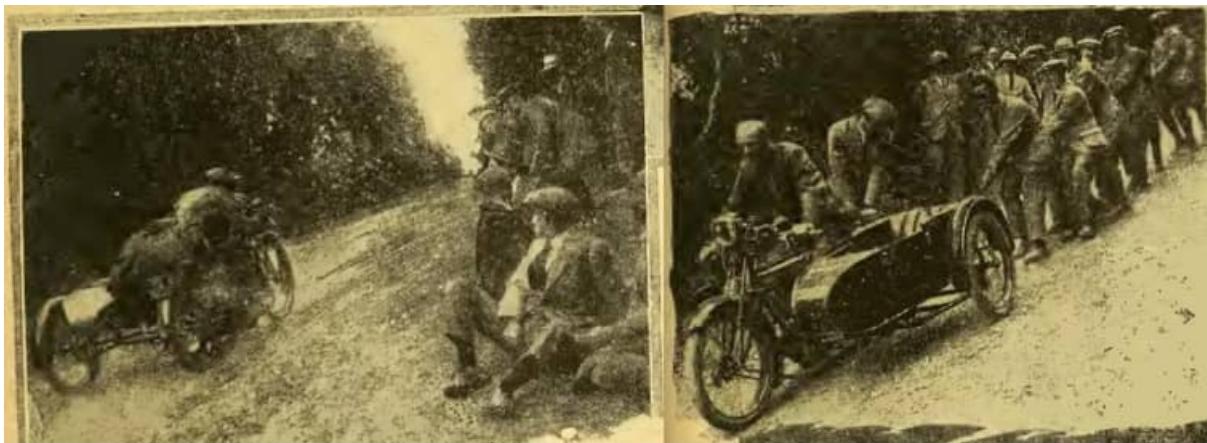
"Testing an experimental flexible sidecar. A Martinsyde outfit on Brooklands track at the corners of the course. This type of sidecar is used on the dirt tracks of America where there is no banking."



"Shall we ever see sidecars hurtling round the bends of the 'TT' course in this manner? An extraordinary impression taken on the dirt track at Mansfield, Ohio, USA, exemplifying the use of the flexible sidecar."

"BEGGAR'S BOOST HAS BEEN CONSIDERED to be Devon's steepest hill, with its gradient of 3.6 to 1 on a small section, but the discovery by Exeter motorists of Sim's Hill, Islington, seems to oust the Roost from the premier position. The new discovery is not a by-road or one in occasional use on a farm, but an old main road running to Ashburton from Hey Tor. Its surface is extremely good when the gradient of 2.8 is taken into consideration. (This, by the by, is the approximate gradient of the entire hill, not a small section.) The hill is approached from the village of Islington; at the foot is an acute right-hand bend and then the steep portion, some 500

yards, is encountered. It is narrow, and like many of the Devonshire roads, has high wooded banks at either side, but it was climbed by Triumph and Norton sidecar machines. In fact, both made the ascent with three up. What proved a problem was the difficulty in getting the machines down again, and resort was made to a rope on which six or more people hung."



"A spectacular ascent by a Triumph sidecar. (Right): Taking no chances with the Norton sidecar."

"HOW THE CRASH HELMET ORIGINATED: Early in 1914 Dr Eric Gardner, Medical Officer for Brooklands track, noticed in his case book that about every fortnight he had a hospital case of a motor cyclist who had fallen on the track and received injury to the head. If the rider was travelling at 60 mph or over he was usually practically unhurt, but if going at only 45mph serious bodily damage usually resulted. After some thought Dr Gardner came to the conclusion that at the higher speeds a man who crashed was projected forward and struck the ground with a glancing blow, and not directly, as happened at the slower speeds. Having witnessed a man part company with his machine through fork breakage while passing under the bridge leading to the track, Dr Gardner thought of the helmet idea, and got Mr Moss, of Bethnal Green, to construct a canvas and shellac helmet devoid of all projections, stiff enough to stand a heavy blow, and smooth enough to glance off any object against which it came in contact. When the design was first submitted to the ACU it was universally condemned, and when the ACU became converted violent opposition was encountered from the riders. Nevertheless, Col Lloyd took 94 of these helmets with him to the Isle of Man. One rider who hit a gate struck it a glancing blow and, thanks to the helmet, was uninjured. Later, Dr Gardner received a letter from one of the principal medical officers in the Isle of Man asking why, when after the TT races their hospitals had always 'several interesting concussion cases', there was now none. All credit must therefore be given to Dr Eric Gardner for an innovation which has not only rendered motor cycle racing a comparatively safe sport, but has saved countless riders from serious injury."

"SIR,—CREDIT IS GIVEN to Dr Eric Gardner as being the originator of the crash helmet in 1914. I would point out that crash helmets were in very general use in aviation long before 1914. The Warren helmet, produced by Mr Warren, who ran a flying school at Hendon, came out in 1912, as also did the Brown helmet, produced by Messrs Brown Brothers.

PHILIP G ROBINSON.

"SIR,—I BELIEVE I CAN lay claim to being the oldest rider on the English track to use a crash helmet on all occasions from 1906 until I gave up track work. This crash helmet can be seen here at any time, bearing a few marks which can show its use, and what it saved my head on two occasions; it was sent me at my request from Paris by Mr Geo Barnes (then called 'Cannon-Ball Barnes' in France) in the autumn of 1905. I have several cuttings from The Motor Cycle during

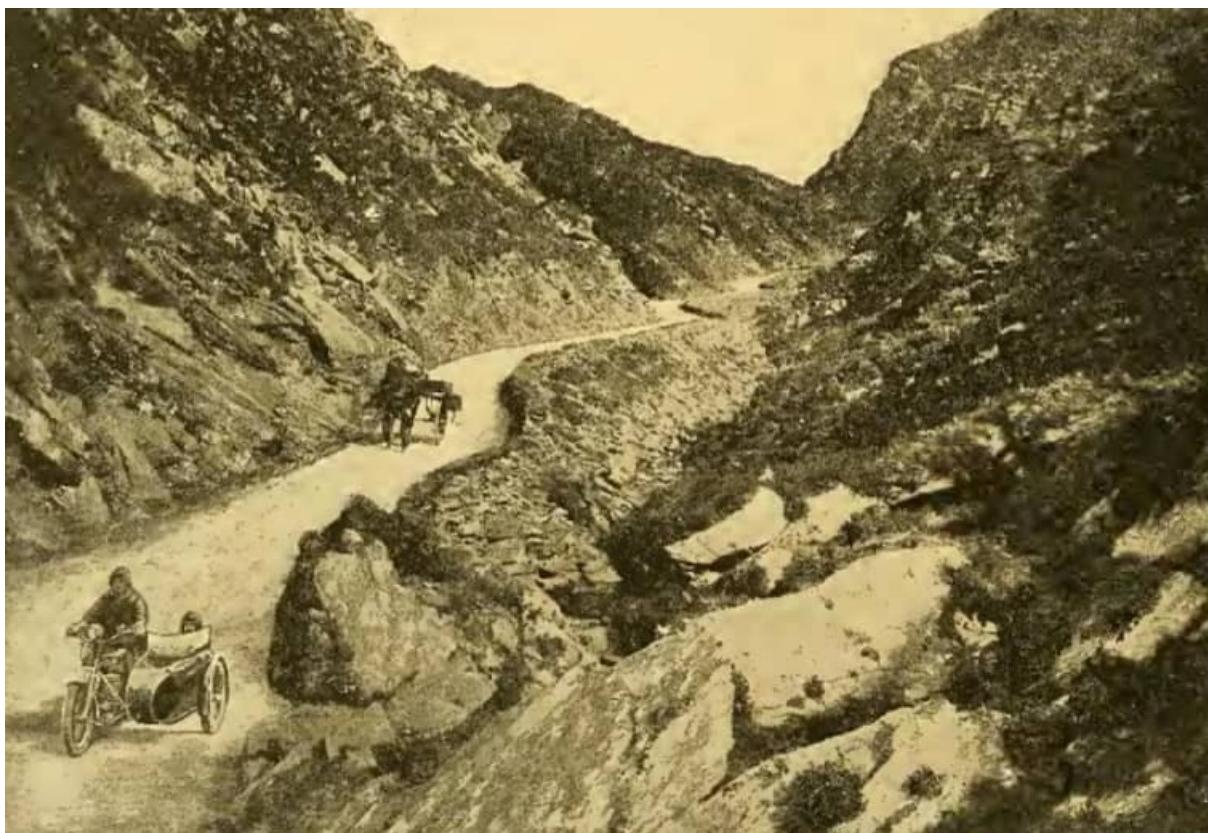
1907, 1908, 1909, etc, of myself wearing this helmet, one occasion being at the Olympia Sports at the Stadium. Maybe someone else, perhaps Barnes himself, used one in England before me, but I do not remember it, nor have I heard of anyone.

DUDLEY R CLARKE."

[In the article which has aroused this correspondence, Dr Eric Gardner was given credit for originating the present 'rim-less' helmet; the older type was, of course, in use many years before.—**Ed.**]

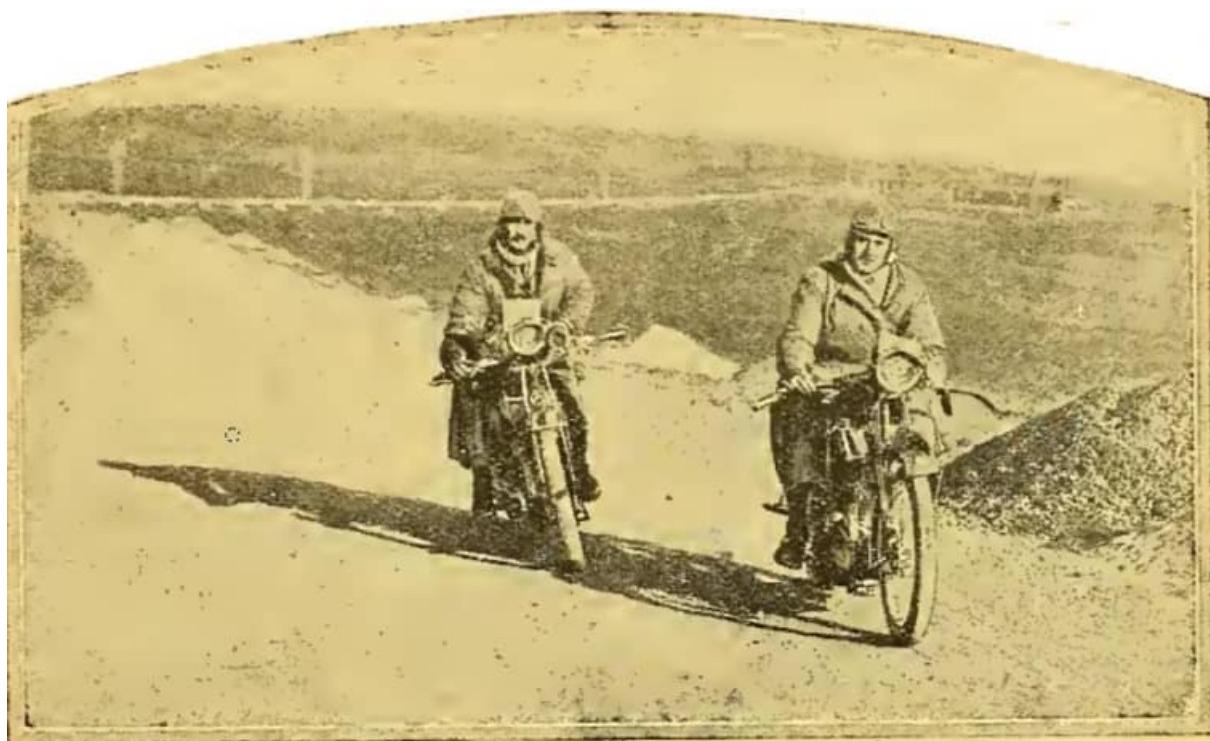


"The greasy plank for motor cyclists. An item on the programme of the Exeter MCCs gymkhana was riding along a well-greased plank, a more difficult feat than one would imagine on a sidecar. A lady member making a good performance."



"It is quite easy, at the present time, to imagine Ireland an impossible country in which to tour, but such is a false estimation. Motoring, whilst not to be compared with its pre-war activity, is much in evidence. The scene depicted is in the Ballagh-Bema Pass, Co Kerry, a district of wild grandeur."

"FULLY FIFTEEN HUNDRED SPECTATORS assembled in the Haymarket, Newcastle to witness the departure of the 60 competitors in the Newcastle DMC's 17th All-night Reliability Trial...The outward journey—120 miles—terminated at Edinburgh, where one hour was allowed. As dawn was breaking the first man was despatched on the return journey, the route through the Lowlands being via Dalkeith, Soutra Hill, Lander, Earlstown, and St. Boswell's to Jedburgh—and a second breakfast stop. Three secret check sections of 10 miles each were included in the remaining 56 miles, the first commencing four miles from Jedburgh, and the second on the climb over the Otter Caps after leaving Otterburn. The morning was gloriously fine, and the gorgeous moorland scenery provided an excellent tonic for the now tiring riders, who had to keep a sharp look out for the sheep which, grazing by the roadside, became greatly alarmed and galloped for miles along the road...A badly cut up road, with huge pot holes, provided the last stretch, the competitors being timed in a mile from Newcastle."



"A pair of Norton riders on Otter Caps during the All-Night Trial to Scotland organised by the Newcastle & DMC."

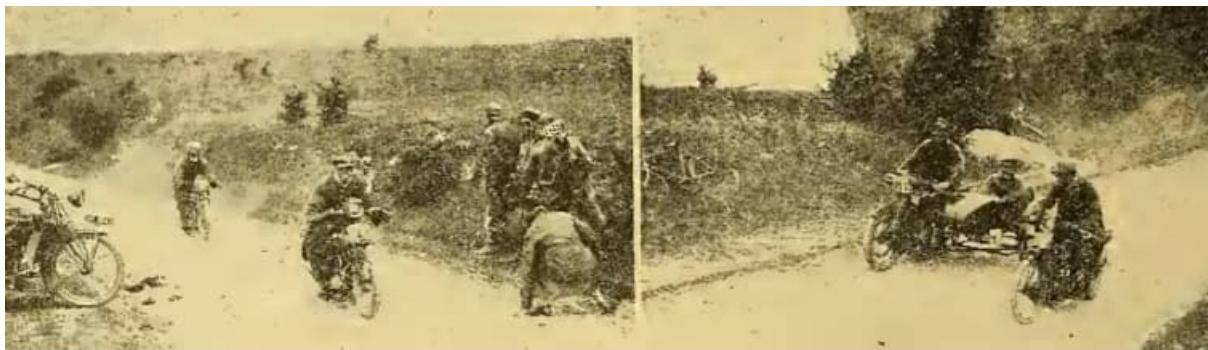
"TWO WHEELS FOR SPORT, three for safety, and four for swank' writes 'Ixion' in chiding an old motor cyclist for abandoning his earlier love for a motor car."

"THOSE WHO SOMETIMES EXPRESS the opinion that finality in motor cycle design will soon be reached may not live to see the day. So far as reliability is concerned British motor cycles have certainly reached a high standard, but to-day there is no more indication that design is settling down to one pattern than was the case a decade ago."



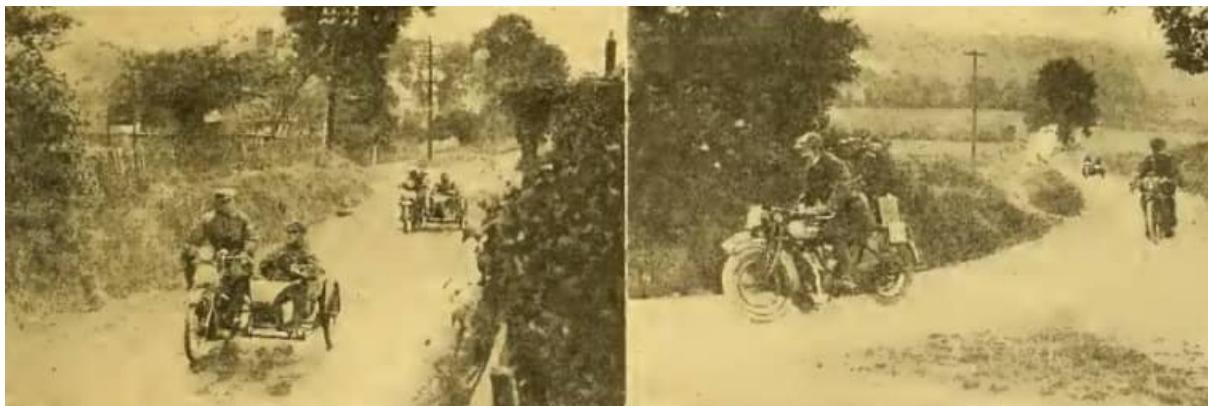
"On a steep bye-road near Tring, WR Haggas (499cc Triumph sidecar), followed by another Triumph rider. This short incline caused more low-gear work than Kop Hill."

"THE WOOLWICH, PLUMSTEAD & DMC holds the Club Team Championship for 1922 by a win in the one of the closest contested events which have ever been run for *The Motor Cycle Cup*. The scene in the courtyard of the Rose and Crown Hotel, Tring, and the space in front of the hotel on Saturday last was the subject, as usual, of considerable local interest and keen rivalry when no fewer than 27 clubs assembled to compete for the club championship this year [Sheffield & Hallamshire MC&LCC; Coventry and Warwickshire MC; MCC; Leicester &DMC; Nottingham &DMCC; Worcester &DMCC; Birmingham University MCC; Bucks County MC; North West London MC; Norfolk MC&LCC; Woolwich, Plumstead &DMC; Luton & South Beds AC; Herts MC&LCC; Ipswich &DMCC; Ilkley MC&LCC; Wallington &DMC&LCC; Bradford MC&LCC; City & Guilds MCC; Surbiton MC; Public Schools MCC; Lewes &DMCC; Oxford MC; North London MCC; Ealing &DMCC; Essex MC; Camberley Club; Basingstoke MCC. All members of the Nottingham team rode machines of local manufacture, as did the representative of the Coventry & Warwickshire MC and the Ilkley MMC&LCC.]...From Yorkshire alone there were three representative clubs competing, as well as many teams from other far distant centres, but the sporting members of the Ilkley MC&LCC, mounted without exception on Scott machines, and the Bradford MC&LCC hold the record for long distance. One hundred and fifty-nine competitors assembled at the starting point, and it was observed that the sidecars were chiefly occupied by male members for time-keeping purposes. No club was leaving anything to chance. The results of the trial, in which seven teams accomplished non-stop runs, show how remarkably close several of the teams were, particularly the first three: (1) Woolwich, Plumstead &DMC, total time error 3min 11sec; (2) Worcester &DMCC, 3min 43sec; (3) Nottingham &DMCC, 3min 46sec; (4) Coventry & Warwickshire MC, 4min 29sec; (5) North-West London MC, 6min 24sec; Norfolk MC&LCC, 6min 42sec; Ilkley MC&LCC, 9min 16sec. The scores of the Woolwich, Plumstead &DMC were as



"On Kop Hill. W Backhouse (499cc Triumph) and H S Moorhouse (499cc Triumph). (Right) HW Glendinning (976cc Zenith sidecar) and HB Browning (349cc AJS)."

follows, and the riders are to be congratulated upon a very excellent performances: BJ Sims (499cc Triumph), 9s error; F Macdonald (976cc Matchless sc), 57sec; E Atkins (498cc Ariel), 23sec; TJ Ross (976cc Matchless sc), 17sec; C Clease (499cc Triumph), 1min 9sec; FJ Ellis (976cc Matchless), 16sec...Rather a curious incident marked the introduction of the Martinsyde sidecar into the Worcester team. R Brown intended riding a 499cc Sunbeam sidecar in place of B Bladder (976cc New Imperial JA P sc), who was unable to compete, but on Saturday morning his gear box seized, rendering the machine unfit for use. Nothing daunted, however, Reg Brown set off on a tour of the local garages in search of a substitute, and was eventually rewarded by discovering a Martinsyde solo. Further search produced a sidecar from another source, and with this hurriedly assembled outfit he pluckily prepared to distinguish himself and his club. But his troubles were not yet over. During the last few minutes before the start, whilst demonstrating the capabilities of his new mount, the clutch cable elected to die a natural death. Even a catastrophe such as this, however, failed to vanquish him, and he eventually started—and finished—on the exhaust valve lifter. The Worcester Club ought to be, and probably are, proud to number such an indomitable rider amongst their members...Starting about half a mile south of Tring, the course totalled 100 miles in all, competitors covering three circuits of just over 33 miles. The roads, where the course included winding lanes and sudden hills, were bad owing to the previous dry weather; the surface being dangerously loose and very rough. We say 'previous' dry weather with some truth, as no doubt the competitors will agree, because the trial was finished at about 7.30 in a mild form of flood. The weather, which had been threatening during the earlier part of the day, broke at 2.30. From 2.30 onwards it rained without stopping, and yet to say that it rained seemed hardly to describe the exact condition of the elements. It deluged. At first it was more or less ignored, as the roads certainly required a little moisture to 'settle' them, but things passed the possibility of 'ignoring' when competitors splashed past, soaked from head to foot, covered in mud and raising a miniature tidal wave as they plunged from puddle to



"In a Chiltern village, Butler's Cross. AS Bagshaw (799cc AJS sidecar), of the Norfolk MC&LCC) and J Hector (799cc AJS sidecar), of the Birmingham University. (Right) Members of the Nottingham &DMCC at the turning into Aylesbury road from Kop Hill. H Karslake (976cc Brough Superior) and FW Stevenson (692cc Brough)."

puddle. This was a great pity as many of the riders, starting in fine weather; were hatless, and, in many cases, inadequately dressed to cope with the downpour. But such is the nature of the motor cyclist that this did not appear to trouble them in the slightest, and everybody, except perhaps the timekeeper, judges, and spectators seemed perfectly happy...In the first round Kop Hill did not present a very serious obstacle, and quite a number of machines roared up on top gear without turning a hair. George Brough on a Brough Superior solo could hardly be described as dawdling on the hill. His machine with the polished petrol-tank flashed past at an amazing speed—and this at the worst part of the hill too. No 144 of the Ipswich &DMCC riding a 976cc Matchless and sidecar succumbed to the 1:5 gradient, that spiteful last 30 yards of the climb, and commenced running backwards, but spectators and observers came to the rescue and the machine was pushed on the grass side-track with a flat sidecar tyre. CM Bowen (398cc ABC), a member of the Wallington &DMC&LCC was forced to retire with back tyre trouble. An Enfield two-stroke belonging to the Camberley Club was making a plucky ascent when, on getting within about 20 yards of the summit, the gear lever slipped into neutral position. The rider jammed it back into gear again, but it was done too suddenly. The strain on the engine, already labouring severely, was too much, and it stopped dead. G Bickerton (490cc Norton sc) was beaten on almost identically the same spot that finished the little Enfield. [However] it speaks volumes for the efficiency of the present day motor-cycle that 156 out of 159 competitors should be able to make non-stop climbs on a hill of this gradient, and at the speed at which many of them took it. George Brough raised a laugh in the second round when he shot over the top of the hill between 35 and 40mph with a cheerful 'There you are then!' and disappeared in a shower of stones and grit round the next corner...Fairly early in the trial HB Browning (349cc AJS), of the



"In the picturesque Chilterns; a scene on Kop Hill: HO Goldsmith (692cc Brough sidecar), followed in the distance by EC Lunniss (976cc Matchless sidecar) and LC Solomon (482cc Sunbeam)."

Public Schools MCC, had the misfortune to snap his clutch cable, making some of the tricky corners none too easy to manage; in fact, he nearly came to grief on one or two, occasions, but pulled out of them skilfully. A Bowerman (220cc Velocette), the only Velocette entered, as it happens, was forced to retire with magneto trouble, and was towed home about five miles by a non-competitor's sidecar. Certainly some wonderful feats of endurance are achieved by competitors during a run of this kind in order to complete non-stop runs and so gain marks for their clubs. A case in point occurred this year which is worthy of note. S Sawer, a member of Sheffield & Hallamshire MC&LCC, riding a 633cc Norton and sidecar, was unlucky enough to break a sidecar spring in the second circuit, but this was not considered a sufficient reason for retiring by any means. The sidecar passenger, to prevent the mudguard from bearing on the sidecar wheel, held it up with his hands for many miles until it seemed that after all they might yet do a non-stop run. In the end, however, they were obliged to give in. It is interesting that S Wright (600cc Humber sc), of the Coventry & Warwickshire MC, has ridden in every team trial for Coventry dating from as far back as the old days when trailers took the place of the 1922 sidecar. Also, PW Moffat (494cc Douglas), of the MCC, has succeeded in scoring his seventh consecutive non-stop in the trial. As a matter of fact, the first complete team to finish the 100-mile course was the Coventry & Warwickshire MCC, followed by Nottingham &DMCC and Worcester &DMCC; then came North-West London MC, Norfolk



"At the Crest of Kop Hill. F James (1,098cc Morgan) and JA Stacey (976cc Matchless sidecar),

both members of the Sheffield & Hallamshire MC&LCC. (Right) A trio of the Oxford MC on Kop Hill. Observe the curious formation of the rising ground which projects into the fertile valley like a cape into the sea. NV Colegrove (550cc Triumph), L Avery (998cc Harley-Davidson sidecar) and JAC Kempster (550cc Triumph)."

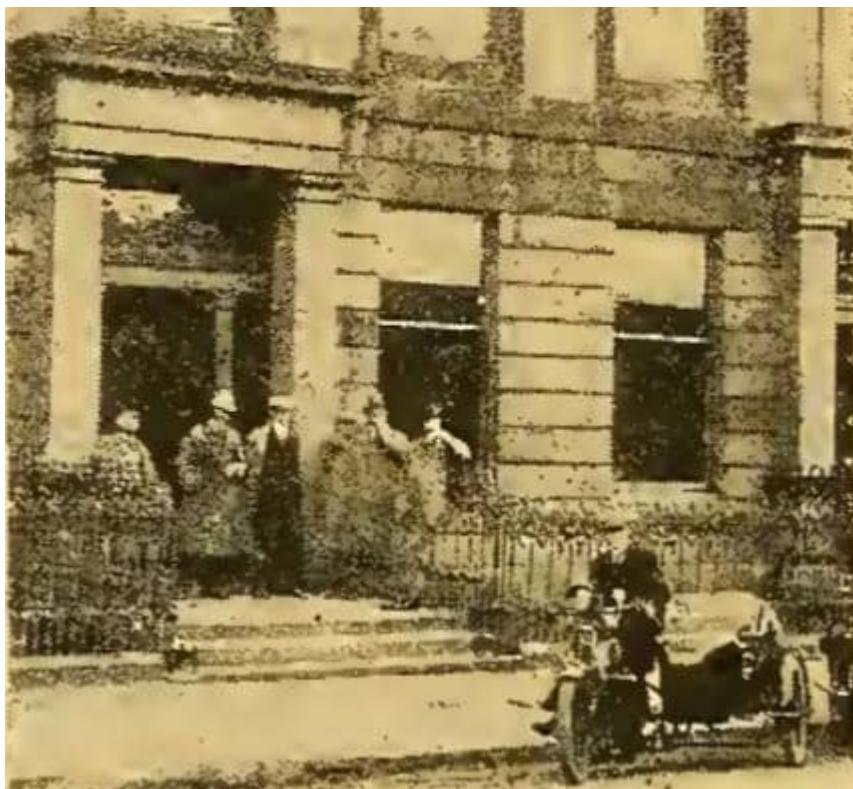
MC&LCC, Woolwich, Plumstead &DMC, and Ilkley MC&LCC. Oxford MC would have made an eighth club finishing complete had it not been for a piece of extraordinarily bad luck. One of their members, NV Young (550cc Sunbeam sc), who has only one arm, dropped his spare petrol-can a few miles from home on the last circuit and stopped to recover it, thus spoiling the chance of a non-stop run. Another little incident illustrating clearly the lengths to which competitors will go in their anxiety to secure the coveted trophy concerns one of the MCC team, GW Nott (976cc Matchless sc). He finished the last 20 miles of the course on a flat front tyre. Although sporting in the extreme, had he but known it the ordeal could have been avoided, because FJ Watson (796cc Ariel sc), another member of the MCC team, had retired with a puncture during the first lap. Various styles of clothing were adopted by the competitors, and tam o' shanters of wonderful hues were immensely popular. Stocking caps were also worn, but the majority of the riders were wearing the favourite flying helmet. One sportsman, regardless of custom or anything else, carried out the trial in a Sidcot flying suit and a battered felt hat, much to the amusement and enjoyment of some of the spectators, but there, was a certain reckless air of ill-concealed triumph about the riders who had taken the precaution of wearing overalls, as they passed their less fortunate brethren, churning through the mud and water in what had once been handsome and delicately coloured golf stockings—"as now worn". It was certainly a pity that the weather turned out as wet as it did, but it cannot be said that the rain in any way interfered with the event; in addition to this, it was not altogether unexpected, with the result that many of the competitors had set out prepared for the ducking which they received." *The Team Trial dated back to 1904, when The Motor Cycle gave the MCC a 50 guinea silver cup; it attracted five clubs. You can read all about it by popping back to 1904.*



"This year's winners of *The Motor Cycle* Challenge Cup in the MCC Team Trial—The Woolwich, Plumstead &DMC. From the left: E Atkins (498cc Ariel), FJ Ellis (976cc Matchless sidecar), C Clease (499cc Triumph), TTJ Ross (976cc Matchless sidecar), BJ Sims (499cc Triumph), F MacDonald (976cc Matchless sidecar). They won by a margin of 32 seconds."

"A STAND AGAINST THE PRACTICE of certain motor cycle manufacturers in issuing misleading advertisements in connection with the classic ACU competitions, is being taken by the organising body. Several advertisements bearing upon the results of the Tourist Trophy Races have been observed, to which strong exception is taken. These advertisements are so worded that to the casual reader it would appear that the machines advertised gained successes, which, in fact, they did not; in one case, indeed, the machine advertised was not even entered for any of the TT Races."

TO AVOID THE POSSIBILITY OF FURTHER CONFUSION, the ACU is approaching the British Motor Cycle Racing Club with a view to preventing in future years certain manufacturers advertising successes in the Brooklands TT Race in such a way as to imply that the successes were gained in the classic road contests. Next year the BMCRC will probably alter the title of its track race open to TT machines.



"A new home for the western MCC, Glasgow. Following the lead of other big motor cycle clubs the Western MCC, of Glasgow, has now been formed into a limited company and will in future be known as the Scottish Western MC, Ltd."

"WHILST ENGLISH RIDERS HAVE BEEN busy breaking records in the Isle of Man and at Brooklands, a remarkably fine performance has been achieved in America. Wells Bennett, mounted on a four-cylinder Henderson (De Luxe Model), celebrated Decoration Day on the Tacoma speedway by completing 1,652.54 miles during 24 hours' continuous riding, at an average speed of 65.1mph. His speed for the first 1,000 miles averaged 63mph, whilst at some periods of the ride he touched 76mph. Bennett also succeeded in creating a new time record on the 1,000 miles, covering this distance in 15hr 47min 15sec, the previous record, set up by Erwin 'Cannonball' Baker, being 16hr 14min 15sec. The track, which is two miles all but 234 feet, was covered 806 times in the 24 hours. It is interesting to note that owing to the poor condition of the track, which is a board one, six rear wheels were required during the event." Baker was

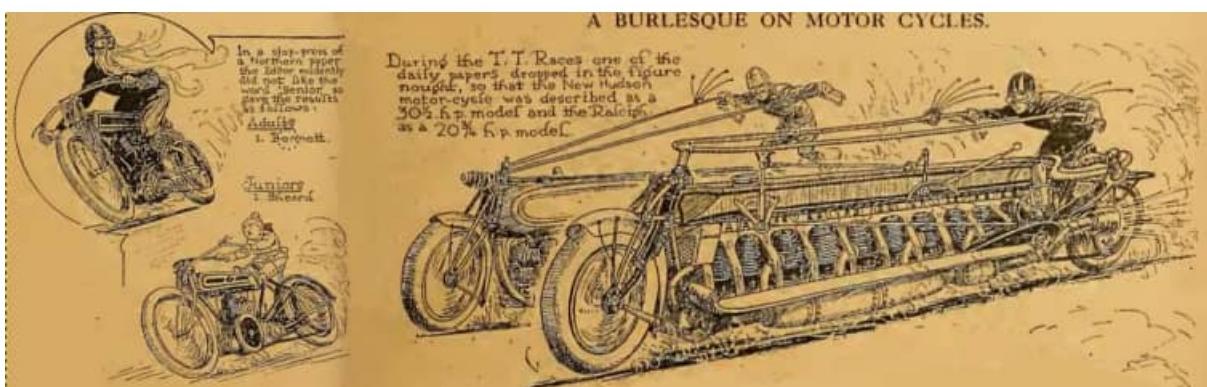
one of the best known motor cycle racers in the USA. He entered his first race at 15 (having lied about his age) and won. Some of the first dirt track races Bennett competed in were free-for-all events pitting motor cycles against cars. Baker was an Excelsior works rider—Henderson was owned by Excelsior when he set the 24hr record. Riding Excelsiors he set numerous inter-city records and earned a good living as a Hollywood stunt rider. Following the 24hr run Bennett rode the Henderson across from Los Angeles to New York, in 6 days, 16 hours and 13 minutes, breaking a record set by Baker on an Ace just a month earlier.” You have to feel for Cannonball, but his soubriquet lives on in a 1970s series of five extremely unofficial trans-continental car races: the Cannonball Baker Sea-To-Shining Sea Memorial Trophy Dash. The run was revived in the 21st century; as of October 2021, the overall record for the 2,906-mile run stands at 25hr 39min—an average speed of 113mph. And in 2024 one Ross “Beau” Earnest howled across the USA on a Yamaha FJR1300 in 32hr 32min at an average of 86.5mph.



Wells Bennett with his 24hr and transcontinental record breaking Henderson.



Cannonball Baker's transcontinental run inspired the world famous Cannonball Run.



"Amusing mistakes are often made by those who are not conversant with the technicalities of motor cycling."

"SIR,—WHEN ARE WE TO GET BACK to the good old name for a maker's speed model, that is the TT Model? Pre-war motor cyclists must be sick of the present jumble of names—sports, super-sports, fast roadster, etc.

WB TOBEY.

HOLIDAY WEAR for the PASSENGER

"IN DECIDING WHAT CLOTHES to take away in the sidecar on a holiday tour, it should be remembered that there is only room for absolute essentials. If one intends going to the theatre or a dance whilst away, due preparation must be made or the penalty paid of being unsuitably dressed, and I know of nothing more calculated to spoil one's enjoyment. Also, one must be equipped for rain and cold in case the weather is bad; it is surprising what a large amount of summer clothing one may carry in a small space."

Miss Peggy Fraser.



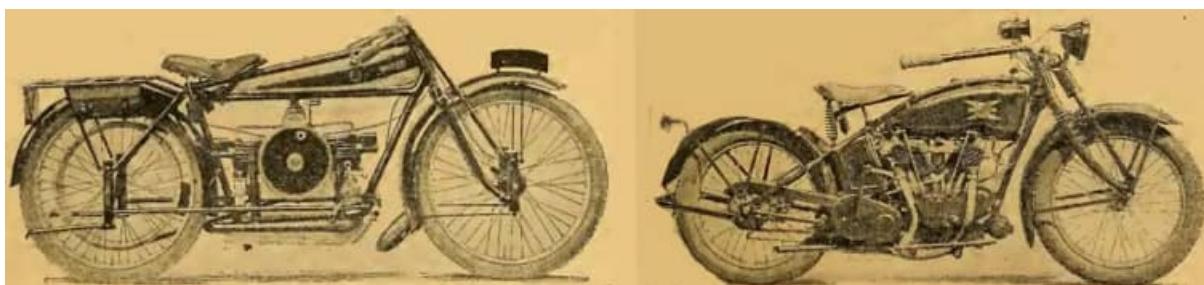
"A checked skirt with grey fur coat, grey suede Russian boots, and suede cap. A grey silk cloth cape trimmed with white rubber. A Russian blouse of fine grey suede with pipings and appliqué of signal red kid. Below is a miniature 'hold-all' for toilet requisites."

"A DESIGN WHICH SHOULD SATISFY the demand for an all-weather machine has recently been introduced by the Jupp Motor Co, London, EC3...The Jupp is an attractive little machine, and should command the keen attention of the ladies. Since the Villiers flywheel magneto, engine, having a bore and stroke of 70x70m. (259cc) and the all-chain transmission are completely encased in easily detachable shields, the Jupp lightweight claims immunity from oil-slinging, whilst there is no doubt that the definite angular outline adds considerably to its appearance...A two-speed Sturmey-Archer gear box is neatly housed at the rear of the inclined engine...Brampton spring forks are fitted, whilst an electric head and tail lamp, supplied from the flywheel generator, are included. An auxiliary dry battery provides illumination when stationary...the starter spindle of the gear box is conveniently placed for the right hand."



"A thoroughly mudguarded two-stroke, the 269cc Jupp. (Right) An ingenious idea facilitating repairs to tyre or chain."

"NEW NAMES AND NEW MODELS under old names are continually appearing in the motor cycle world, but in no class more often than in that embracing light-weight solo machines. Five recently introduced models of this type are portrayed here, and one of a modified American twin."



"On a new Wooler that portion of the fuel tank which previous protruded in front of the steering head has been eliminated and the tank, still bulbous, follows conventional lines. (The Dederich-Wooler Engineering Co, Alperton, London.) (Right) Dirt and dust excluding washers on the wheel-spindles, a stronger ammeter mounting behind the steering head, and an auxiliary hand pump-fed oil pipe to the crankcase are the chief modifications on the latest edition of the American X to arrive in this country. (Melchior, Armstrong & Dessau.)"



"There is nothing unconventional about the Kingsway, a 293cc JAP-engined mount marketed, fully equipped in a two-speed form, at £63 by the Kingsway Motor Cycle Co, of Much Park St, Coventry. (Right) Barr and Stroud sleeve valve engine, Cox-Atmos carburetter, and Maplestone forks are the salient items in the Crest's specification; the price, with Burman two-speed gear, is £80. (The Crest Motor Co, Blackdown, nr Leamington.)"



"Priced at £68, the latest Francis Barnett is a modified edition of the well-known sports model, a 293cc JAP engine and two-speed gear box being fitted in this case. (Francis & Barnett, Ltd, Lower Ford Street, Coventry.)" (Right) The Beaufort relies on well-tried components; it is a Villiers-engined two-stroke selling with clutch at £40 15s, electric lighting £5 extra. (The Argson Engineering Co. Ltd, Beaufort Works, South Twickenham, Middlesex.)"

*The SIDECAR and
the PUNT*

Near Boulter's Lock, Maidenhead.

A Soliloquy, Written by the Cool Waters of the Thames after a Dusty Ride across the Chilterns.

A pretty scene on the Thames near Marlow.

"BOULTER'S LOCK, 7PM—A PAGEANT OF COLOUR AND POSE. Like a dozen or more sidecarists, I am sitting on the banks of that narrow little stretch of water leading from the lock. After dropping down from the heights of the Chilterns into the Thames valley, we have been caught by the glamour and riot of colour passing along the cool green water-way. My fellow sidecarists, too, have been lured from the road in the same way, for each outfit has tarried independently. Here are men propelling punts with an air of studied negligence, but monstrously unsuccessful in their efforts to appear unconscious of the crowd's critical gaze. One tall, perspiring punter has allowed water to drip from his pole on the cushions and hat of a damsel reclining on blazing crimson and gamboge cushions. This has resulted in a disturbance of a pose that must have taken hours of careful thought and preparation—careless monster to make a faux pas at this most important part of the play with an audience so near and so critical. What a contrast are these passengers to our own; there is no denying the cool luxury of reclining on huge cushions clad in the flimsiest of dresses—of being propelled silently, without an atom

of vibration, in the shadows of willows and poplars. And the sidecarists—they are dusty, their filmy dresses are at home, they repose on leather, they know what vibration means, and ‘potholey’ roads too. Their way is not by still water and drooping willows. But after all there cannot be a real comparison, for, as attractive as the river is on a flaming day in July, the highways and byways of Great Britain offer infinitely more than a circumscribed stretch of water can ever do. Not long ago we were lunching on the very topmost heights of the Chilterns, a lovely spot reached by branching off the main Aylesbury-Tring road near Aston Clinton on to the road that winds across the Chilterns past the water-works on to Cholesbury and Hawridge. It is a beautiful route along a road that eventually develops into a steep gorge running through a fairy wood as lovely as-Via Gellia in Derbyshire. When the roof is reached—809ft—the country lies spread around much like the panorama from the Malvern Hills. The circular run we are making has been through amazingly exquisite country, as diverse as can be found anywhere in England—well, hardly that, for the sea was not embraced; but, considering the nearness of London, really wonderful. There must be thousands of Metropolitan and Home County sidecarists who are occasionally at a loss for a week-end ‘touring’ route, and the following run, mapped practically as we went along, may fill a gap when a jaunt of 70 or so miles is desired. One can start at 11 o'clock, taking the Edgware road as far as Elstree, or branching off before Elstree and including Stanmore on the way to Bushey and Watford. (A good road, excellent from Elstree.) From Watford through picturesque country to Berkhamstead, then branch to the left for Chesham. (A suitable spot for a picnic luncheon may be found on the pretty common on the right.) On reaching the bottom of the hill into Chesham, turn abruptly to the right (missing Chesham), then through Chesham Vale on to Cholesbury and past Tring water-works, and ‘little Derbyshire’ (800ft), on to the Tring and Aylesbury road. Leave the main road again



“At Stratford-on-Avon one is able to park the sidecar quite near to the water’s edge whilst spending an hour or two on the delightful and historic Avon. BSA sidecars are seen in the foreground.”

immediately for Wendover, Amersham, High Wycombe—hilly, attractive going—Great Marlow, Cookham, Taplow, Maidenhead, Windsor, Runnymede, Staines, and London. This run embraces the best of the Chilterns and the finest reaches of the Thames. The roads, too, are good on the

whole. No! after all it is not a question of whether boating is superior to sidecaring: it is a matter of taste—or finance, for one cannot hire an outfit so easily as a punt. As attractive as the river is, I would rather have crossed the Chilterns and wandered along the luxurious Thames valley as we have just done, than have eaten lotus beneath a cascade of grey willow whilst reposing lazily in a punt. It is growing dusk, and a couple of sidecars still remain at the water's edge; it is, however, light enough to scribble. We have just returned a hired punt to the boat-house. It came about this way.

Self: (still in dusty riding rig): 'I expect every leaky old punt is in commission to-day.'

Passenger: "Spect so! The leakier the better, I should say." (Takes off coat and wrap.)

Self: (rather surprised at the white dress beneath passenger's coat, also notices she wears white shoes): 'Jove! You're just right for the river.'

Passenger: (jumping to conclusions): 'Well, it's only dust on your boots, and you wear a white shirt and your trousers are flannel.'

Self: 'I wonder if it would be safe to leave the sidecar? And what about your pose? You've had no practice at posing.'

(Passenger here strikes a self-conscious attitude and adopts an admirable and very self-conscious smile.)

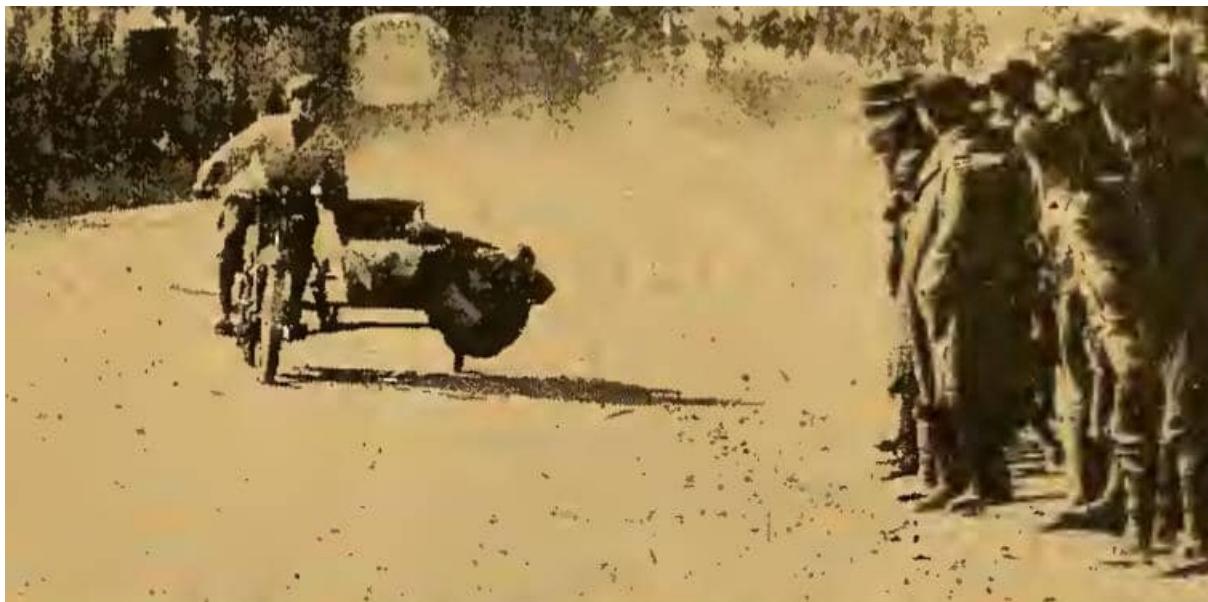
Self: 'Splendid! But what about my pose?'

Passenger: 'That's all right, dear; it will come naturally to you.'

(She turns and walks hurriedly towards the boat-house! Self stands foolishly for a second or two, swallowing the compliment, then grunts and follows.)

The sidecar for me every time, it's very, very hot punting, and the gnats are a perfect pest when you sit under the willows. I look forward to the 20-mile run home, yet I guess when my passenger talks to her friends of to-day's outing she will say: 'We had such a lovely time punting on the Thames.' But ask her to-morrow whether she would rather punt on the Thames for a fortnight, or sidecar through North Wales and the Lake District! One cannot deny the romance of the river, for as I finish writing, a canoe glides by like a long grey shadow in the violet of the night, and as swiftly and silently as a black bat's flight. Murmurs faint and rippling water...and so on to the accompaniment of muted harps, and Eastern drums. But there's not much of a black bat's flight about a 'hot stuff' Norton sidecar, say, on the Great North Road at midnight. No! there's not much romance about sidecaring as seen by the observer, although romance and the sidecar are sometimes very closely associated."

Friar John.



"Acrobatics on the road. Cornering with a sidecar at speed. Observe the position of the passenger to keep the wheel on the ground. An incident in the 12-hour motor races at Madrid."

"A NOTICE ISSUED BY THE CLERK OF THE COURSE at Brooklands, Colonel F Lindsay Lloyd, is to the effect that motor vehicles, particularly motor cycles and others fitted with motor cycle engines, have become too noisy. In the future, therefore, no motor vehicle which makes a noise likely to cause annoyance to residents in the neighbourhood will be permitted to enter the track grounds."

"SIR,—IT WOULD CERTAINLY APPEAR that some person, or persons, antagonistic to motor cycles and motor cyclists, and having influence in the right quarter, has been working to banish the motor cyclist from Brooklands track. One is asked to believe that it is the noise of motor cycle exhausts, as distinct from that of racing cars, which is particularly offensive to certain residents in the vicinity of the track. That this is a gross piece of bluff is obvious to the meanest intelligence, and is disgusting to anybody having the most elementary sense of fair play. I have personally been in the paddock when a certain racing car of foreign manufacture was started up, completely drowning the sound of the exhaust of several motor cycle engines which were running at the time. One of these happened to be my own, and I had a few minutes previously been informed by a BARC official that my machine was too noisy. Needless to say, there was no question of the barest suggestion that any noise was being made by the juggernaut with a German engine which was bellowing in our midst...Are we really expected to go on believing this cock-and-bull story about the astonishing discrimination between sounds possessed by the residents around Brooklands track, or are we going to hear the truth of the matter—or are the vested interests concerned too sacred or expensive to be disturbed by mere fair play?

XF573, Aldershot."

SIR,—WE ARE EXTREMELY SURPRISED at this late date to receive a notification of the abandonment of the 500 Miles Race, and consider that the matter is sufficiently serious for the intending competitors to get together and endeavour to save the situation even at the 11th hour. It appears almost incredible that about five local residents should be in a position to hold up the whole motor industry and cause the wastage of, at an estimate, somewhere between £20,000 and £40,000 of the trade's money, without giving the trade any opportunity to submit a scheme for making the competing machines reasonably silent. In fact, we understand that the point has been put to the complainants' solicitors, who refused even to discuss the matter. The 500 Mile

Race is, to our mind, the most important racing event of the year, and we believe that next year the public would have given it precedence over the TT races, on the ground that in the TT the man counts for more than the machine, whilst the 500 Mile Race is almost entirely a test of the machine. Any rider who is sufficiently skilled to keep a machine on Brooklands at speed has an equal chance with a crack rider of securing the prize...it should surely be possible for the complainants' solicitors to give one of those concessions (with an unnecessary Latin name) for the race to be held subject to the machines passing, immediately before the race, a standard of silence test set by the RAC Engineer and defined well in advance of the actual date, so that there will be no excuse for competitors arriving with machines which would not pass the test. We have been experimenting with and have evolved a particularly efficient silencer for our 'Quick Six' machines which does not involve the fitting of an expansion box nor create any back pressure, and which does make our 'Quick Six' machines quiet. We should be only too pleased to submit this device as a standard of silence, and to supply all competitors with similar silencers suitable for their individual machines at cost price. All machines would then be under the same disadvantage, if any. We trust that very active steps will be taken in this matter, and that when the full circumstances are available to the public it will be found that the BMCRC, ACU and BARC. have used every endeavour and adopted a bold policy.

GEO TILGHMAN-RICHARDS, FRAeS, MIME, MIAE, MIAeE, Martinsyde, Ltd. "



"STRASBOURG WAS EARLY ASTIR on Wednesday last week, the occasion of the Grand Prix Motor Cycle Race, organised by the Union Motocycliste de France. The whole of the week has been given up to a national fete in Alsace, car races following the motor cycle event on Saturday and Sunday. Many visitors from all parts flocked towards fair France's regained province, not a few hailing from England, whilst Italians were also in evidence. The race itself provided still another victory for British productions, A Bennett (492cc Sunbeam) winning the senior event, and Geoffrey S Davison (248cc Levis) the lightweight section, Italy gaining the 350cc event in Visioli, who rode a vertical twin-cylinder two-stroke Garelli—a machine of extraordinarily neat design, which showed up conspicuously throughout. It is a pity that no British machine was represented among the six entries in the 350cc section: one would much have liked to see AJS riders in the contest, and some of the fleet JAP and Blackburne-engined mounts of home construction. It is particularly noteworthy that both Bennett and Davison repeated their Isle of Man successes. In the case of Bennett his victory in the Grand Prix is all the more convincing, as he carried off first place in France last year, won the TT this year, and now



The 250s get under way at the French Grand Prix.

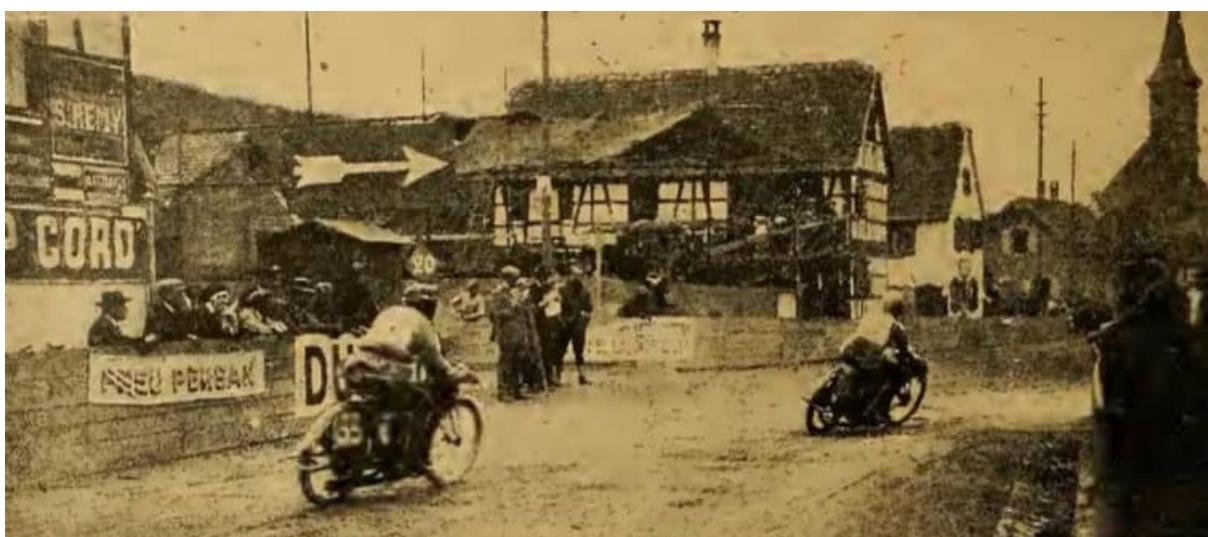


From left: "GS Davison and his wonderful Levis at the conclusion or his splendid ride of 166½ miles in 3hr 0min 8.4sec. Winner of the 350cc race: Visioli and the two cylinder two-stroke Garelli on which he led his class from the 11th lap. Two other Garellis secured second and third place. The hero of the 1922 Grand Prix: A Bennett, winner of the 500cc class, on the Sunbeam with which he also won the Senior TT Bennett was also first in last year's Grand Prix."



French Grand Prix competitors (L-R): Messrs Hassell, Hollowell, Graham Walker (with pipe), Shaw and Francisquet.

achieves the grand slam by again winning the Grand Prix...When a Frenchman wins his compatriots embrace him. Taking a leaf out of their book, de la Hay and a host of other Englishmen soundly kissed Bennett on his arrival. Probably our French friends now think that we have changed since the war, and have become more demonstrative...Both Bennett's Sunbeam and Davison's Levis were fitted with the identical engines used in the Isle of Man—and, moreover, their gear ratios, even after experiment, were unchanged, despite the fact that the roads in the Strasbourg circuit are practically flat...All round the course railings were used to keep spectators off the roadway, gendarmes and soldiers with fixed bayonets guarded the approaches being stationed at equal distances over the whole course." The Blue 'Un commented thus: "[Bennett and Davison] can rightly claim to be, in their respective classes, Europe's premier racing men, while the makers of their mounts share their success...Being practically straight and without gradients, the course provided a test entirely different from that imposed by the sinuous and hilly route traversed by competitors in the Tourist Trophy Races. Such a course called for sheer speed, and few prophets predicted a win for a two-stroke engine in any of the three classes. That, in such an event, the winners of two of the classes were two-strokes in competition with



"Gnesa (Garelli) at the heels of a 500cc machine on the third of the three corners of the course. Eventually he ran second in the 350cc class to Visioli on a duplicate machine."

engines embodying the latest four-stroke practice, shows the progress of the type...Being held under the auspices of the French Government, the preparations at Strasbourg for the event were unquestionably excellent. But there were several points in the actual organisation of the race which might be criticised, and the English visitors could not help but compare the French methods with the ACU's very complete organisation of the Tourist Trophy Races...three or four men were flagged to stop when actually they had not completed their allotted laps. NOTES: Four-valved twin-cylinder engines were the feature of the racing Peugeots. The overhead mechanism was entirely enclosed in ribbed aluminium casings...JL Norton found that his garage had been broken into overnight and Hassall's machine had had several nuts loosened. The matter was brought to the notice of the French officials, who regarded it in a very serious light and promised full investigation. One more case of this kind will kill international competition as surely as it was killed in 1905...Cottin (Velocette) overshot his depot and rode back to it, thereby arousing ire among the officials...Duttlenheim Corner was taken steadily by most of the competitors but Naas, the daring ABC rider, actually passed a rider on the bend and just escaped touching him...In the Armor-Thomann-Alcyon depot petrol poured from its tin into a spouted can was filtered through someone's hat...Two of the three Garelli's made excellent starts and kept up a fine average throughout. This is the first time this ingenious two-stroke has been raced before a representative group of British motor cycle enthusiasts, but it is not unknown to Italian speed events...The lightest machine in the 500cc race was Marc's Twin Alcyon, which weighed 1951b. Thus the rider's weight of 1471b was 43%, of the total of rider and machine. The heaviest motor cycle in the 500cc class was Walker's Norton, which weighed 2791b, the rider being 1791b, 39% of the combined weights...Lightest among the lightweights was the privately constructed Chauviere, which weighed but 1491b. This machine had a four-valve four-stroke engine built into a Villiers frame...Again the side valve single has won a big international event in competition with the ohv type, which was in the majority."



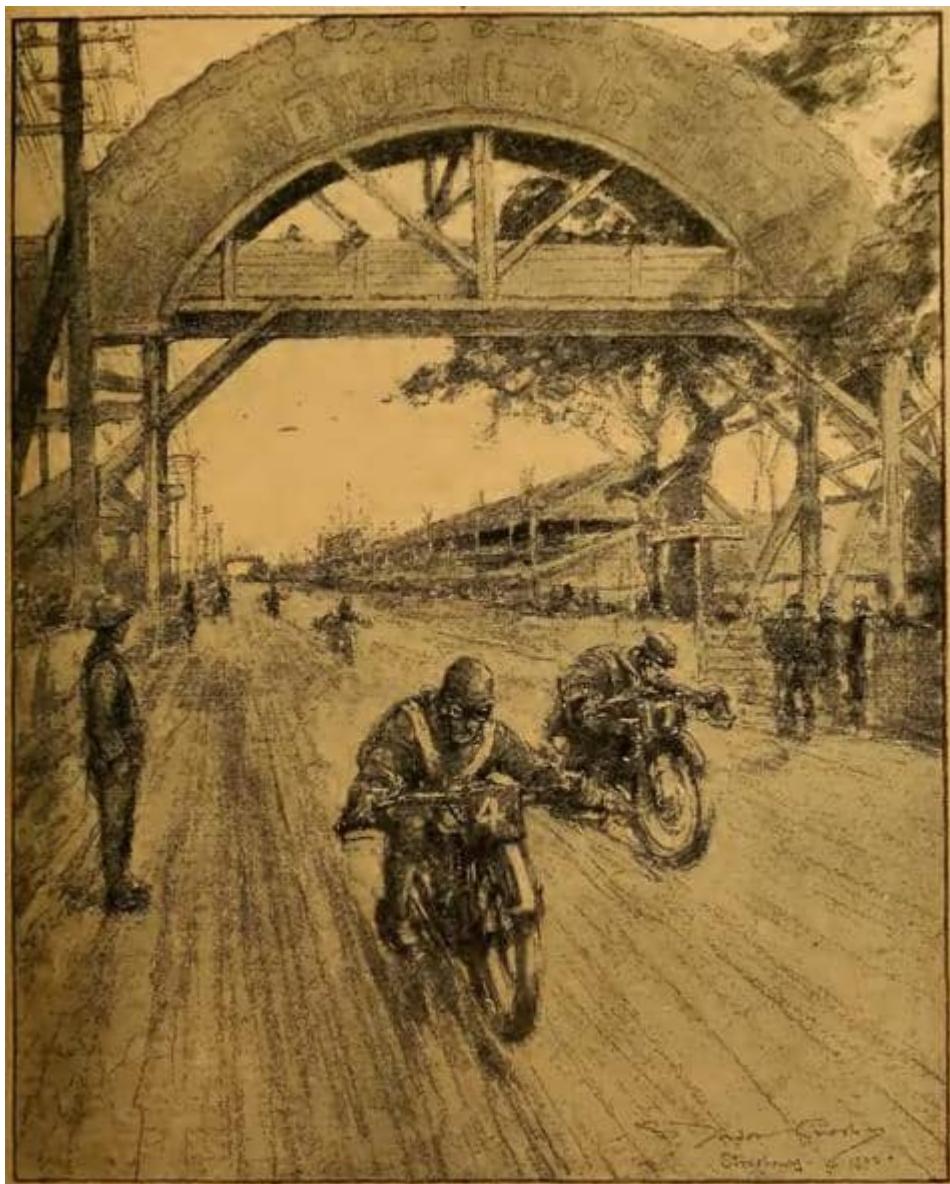
Visioli, en route to the chequered flag aboard his innovative 350cc Garelli.



The Garelli team, Gnesa, Visoli and Dail'Oglio, clearly pleased with their hat-trick.



French Grand Prix pit stops: Colombel gasses up his Duggie; (Right) Meunier (who seems to have spare tubes round his tummy) watches as his Alcyon gets some attention. Is that jug on the table full of motor spirit? Should the chap in the boater have a fag in his mouth? Beats me.

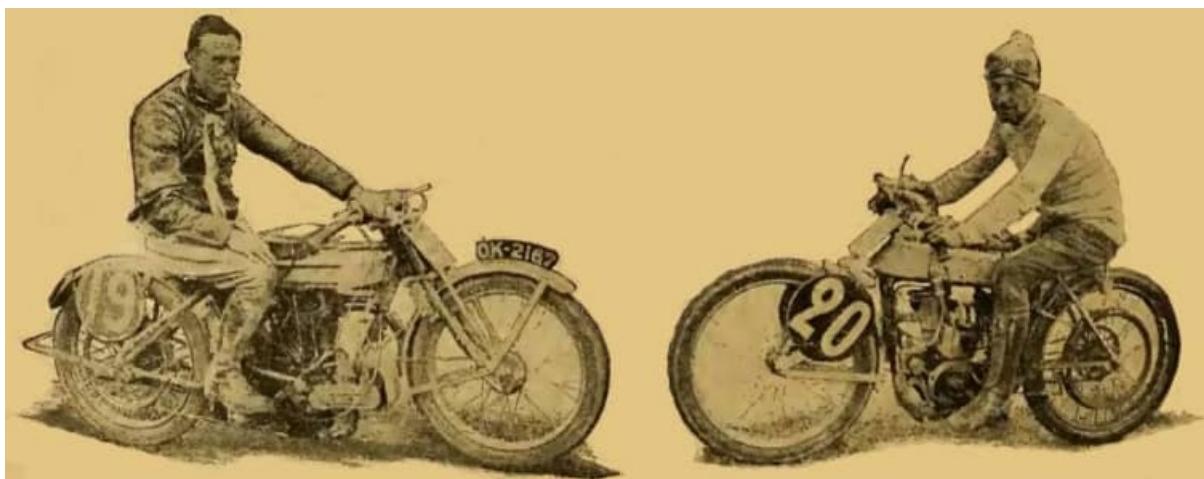


"110-mile duel in

the Grand Prix: A Bennett (Sunbeam) and Jolly (Alcyon) representing England and France respectively hurtling neck-and-neck past the grand stands during a duel which lasted for 13 laps." The artwork, of course, is courtesy of the great Gordon Crosby.

"AT STRASBOURG—IMPRESSIONS OF THE ALSATIAN CAPITAL during Grand Prix Week: At least half the enjoyment of a French motor-cycle race lies in the general atmosphere which prevails. At Strasbourg, indeed, it was the more marked because the weather was vile on the actual day of the race, for, even with this to damp everybody's spirits, still the spectators treated the whole thing as a spectacle for their amusement. Before the race anybody with a motor cycle, more particularly anyone in a peculiar garb or with an engine possessing an unusually strident bark, was the centre of almost embarrassing attention, and, knowing this, handled his machine with as many little spectacular touches as possible. If any motor cycle stopped, while its rider so much as lit a cigarette, an enormous crowd formed a thick hedge all round it to comment on the engine or rider impartially in a *patois* which owed something to Germany and little to France. Then, when the inevitable white-trousered *Agent de Police* arrived, inquisitive as to the obstruction, the crowd did not dissolve, but had to be pushed aside until the Majesty of the Law confronted the motor cyclist. Even then the Law was stymied, because, in nine cases out of ten,

the motor cyclist, being English, could not understand a word—or for convenience claimed this disability. To go to a cafe of an evening, especially in any sort of



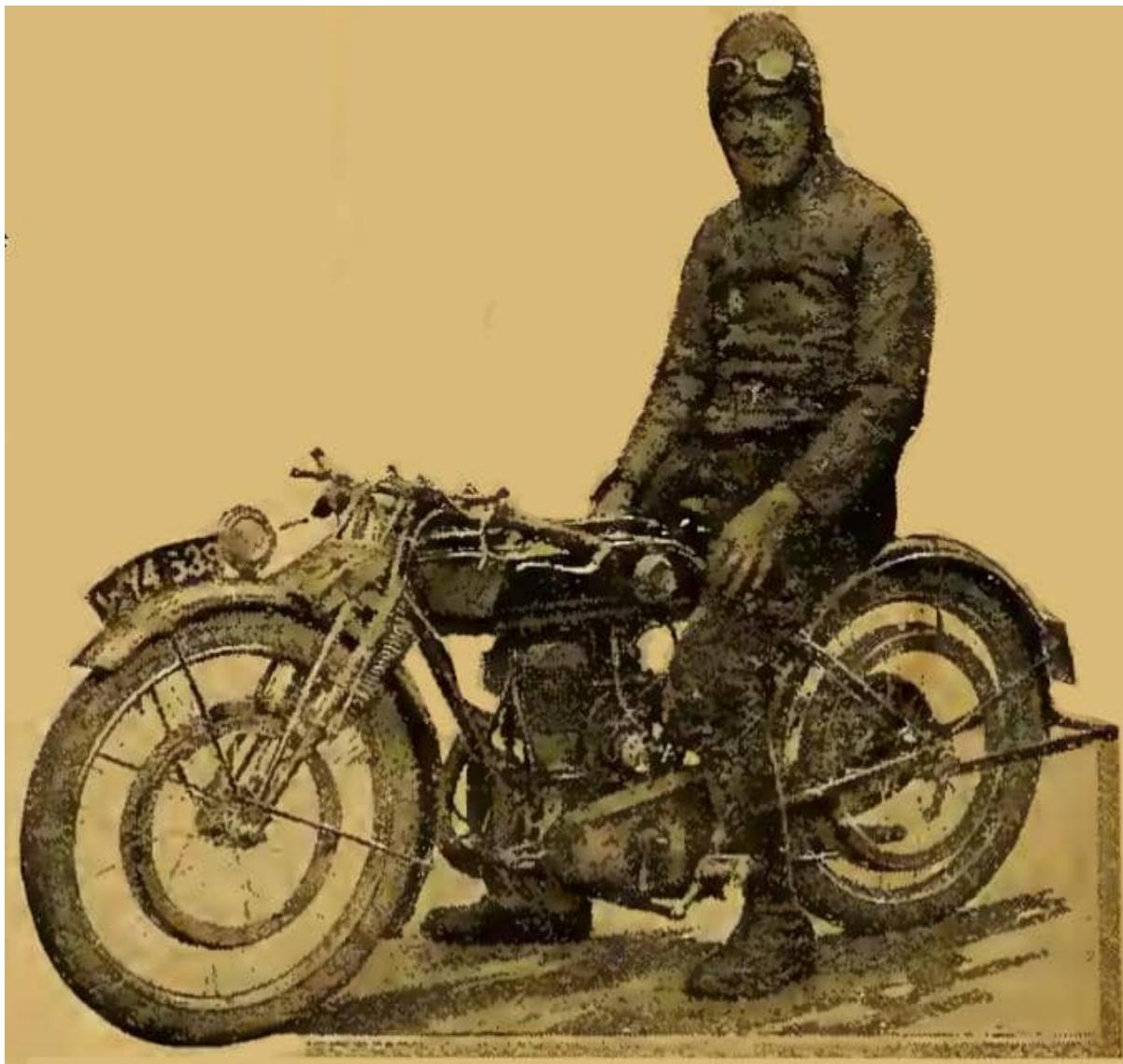
"H Hassall (ohv Norton), whose riding aroused the admiration of every spectator. He led on lap 11, fell back to fourth on laps 13 and 14, and regained second position at the 25th lap. (Right) Marc (Alcyon), who, through an error on the part of the officials, was flagged off the course two circuits short, which lost him a place in the 500cc race."

leather coat, was to be a hero very easily. Can it be wondered that everyone rode the streets in sharp bursts, let their engines 'rev' suddenly until the old buildings rang with the noise, and allowed their machines to skid just sufficiently to demonstrate a masterly recovery. In any case a motor cycle of the racing brand can make more noise than a sporting car, and, since noise is appreciated in France, the motor cycles scored heavily over the many ferocious canvas-bodied cars which were in Strasbourg for the car races. Seriously, though, the atmosphere of a French town before a race is something worth experiencing after the apathy of the average English crowd. When the Frenchman—or in this case the Alsatian—sets out to make merry, he makes very merry and is not afraid to show it...In England, to stroll about munching the end of a long roll and with a large bottle of cider under one arm, would invite undue attention. If, added to this, one is wearing a purple waterproof, a blue collar having a pattern of crimson flowers and a yellow necktie with vermillion spots on it, then a crowd—probably a hostile crowd—would collect. In France nobody pays any attention, and everyone is happy...Man, woman and child, they watch each machine which stops at the pits and argue hotly as to why, going into technical details to any length. All classes do this. Now imagine a charwoman in England who could talk seriously about an ohv Triumph, and you have the parallel case...towards the middle of the race quite a lot of people have got where they shouldn't be, and done what they 'didn't ought', *and nobody minds*. You would not see the TT winner kissed by a quite strange girl immediately he finished perhaps it would increase the entry if you did; but it has happened in France, and nobody can see why she shouldn't. Every tram, nearly every house, and practically every car has a flag, two flags, four flags, or more, the cas often having as many as their owners can borrow or steal. This adds colour to the scene, brightens everybody up amazingly, and convinces one that this really is a *fête*, not a funeral. So great is this effect that even staid Britons have been known to wear a tricolour in their hate. Taking it all round, the French know how to stage a race and, which is more important, the crowd know how to act their parts with zest."

FEESH ON THE HEELS of their success in the French Grand Prix, British riders and machines swept the board in the big Belgian race last week-end. Again, a Sunbeam was foremost in the 500cc class, the rider being A Jackson, a north countryman not yet well known in the racing

world. In the 350cc class the winner, E Remington, rode a Belgian assembled machine, the Rush, equipped with a Blackburne engine, while once more the 250cc victory has fallen to GS Davison on the all-conquering two-stroke Levis."

"THE ACU HAS RECEIVED AN OFFICIAL letter from the authorities responsible for the Belgian Grand Prix to the effect that Alec Jackson, the Sunbeam rider who came in first in the race, was disqualified for changing a sparking plug."



"Hard luck! Alec Jackson of Keighley, who privately entered the Belgian Grand Prix and won. He had trouble with a plug, however, and, because he exchanged it for one offered by a spectator, he was disqualified."

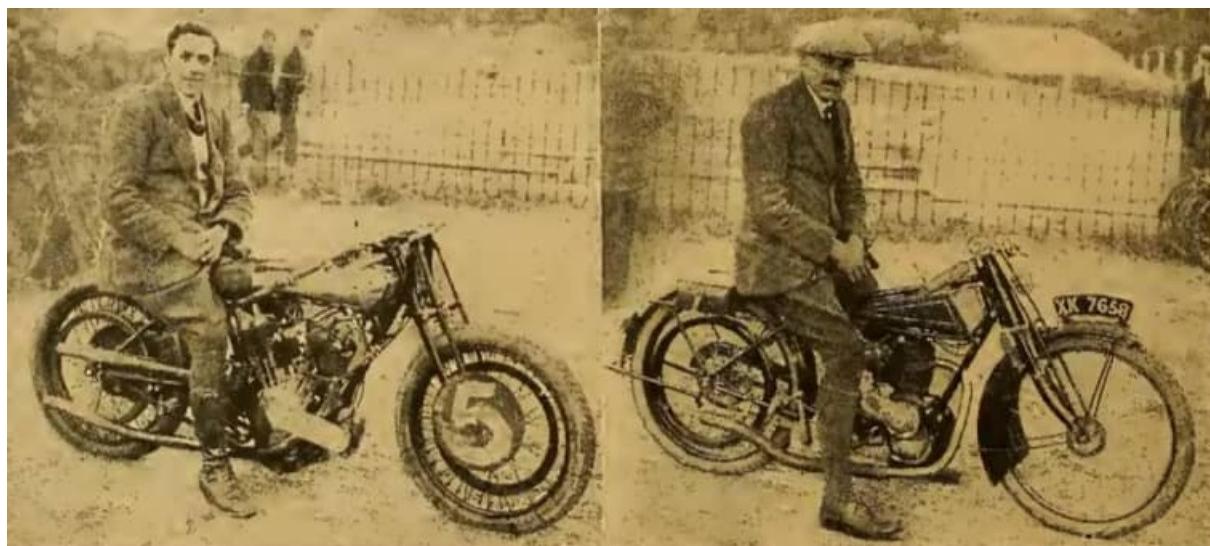


"Holder of the championship of Germany: W Rossig, who gained his title against riders on machines representative of many countries, on the 494cc Douglas which he rode."

"CASUISTS AND MORALISTS, IXION ADMITTED, may find food for thought in the causes which may lead up to my doing time at the moment these words appear in print. I was riding a motor cycle in somewhat lightsome mood, and was also on my way to catch a train to fulfil an important engagement at a distance. The road was straight, empty, devoid of turning, and to all appearance deserted. The machine on which I was seated has done as near as no matter 70mph on Brooklands, and at the critical moment—shortly to be described—it was absolutely all out.. Suddenly a couple of constables jumped out of concealment in the hedge, and held up their arms. I didn't stop, because I couldn't; at that speed a cautious man requires room to pull up. As I slowed down, the sergeant emerged; and about the place at which I came to a standstill, the inspector dived out. I don't feel in the least guilty. Ought I to?"

"WHEN AN L&SW EXPRESS TRAIN rattles along the railway straight at Brooklands, it is impossible to hear the cars and motor cycles running in the vicinity. Aggrieved track-men wonder if there is anything particularly soothing in a steam locomotive's roar and clatter to the Weybridge residents who have complained of the motors' noises."

"THE DUKE OF LEINSTER'S MOTORING ESCAPADE—London to Aberdeen in 14½ hours—so prominently reported in the daily press, has called forth a letter of condemnation, widely circulated, from Mr T W Loughborough, the secretary of the ACU. We agree unreservedly with Mr Loughborough's comment that such a happening 'merely does harm to the movement'."

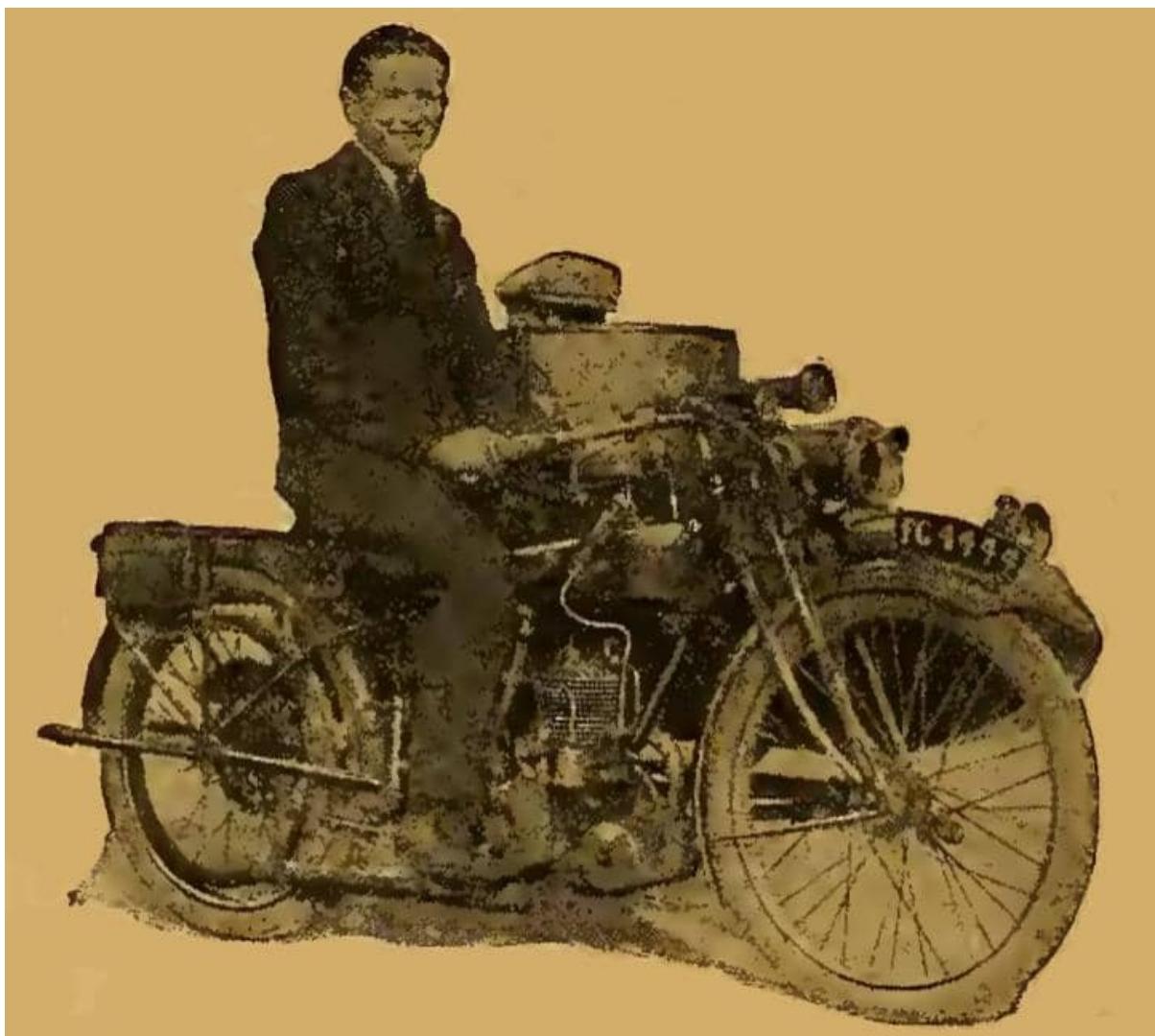


"At the MCC Brooklands meeting on Saturday, two new-comers to the track were successful in winning races at a first attempt. A Barr and Stroud-engined Diamond ridden by AS Guthrie opened the ball by romping home first by a big margin in the 350cc handicap, the speed, being 54.96mph; and in the unlimited handicap a side-valve Brough Superior driven by George Brough himself, won equally decisively at 82.05mph."

"IN 1921 THE TOTAL NUMBER of motor cycles registered in France was 42,864, while in 1920 there were 50,783 registered. It is thought that the reason for this falling-off in the number of motor cycles is due, not to any lack of popularity of this form of locomotion, but to the fact that in France the cycle car is becoming a serious competitor to the motor cycle and sidecar."

"THE MOTOR CYCLE ORIGINATED the term 'flat twin' as an easily remembered title for the horizontally-opposed twin cylinder engine and it caught the popular fancy. Now we are constrained to suggest, more or less seriously, the term 'split-single' for engines having two cylinders with a common combustion space, like the Garelli, which secured the first three places in the 350cc Grand Prix."

"ALMS HILL, NEAR HENLEY, reputed to be steeper than 1 in 3, was on Saturday included for the first time in an important reliability trial. Although by no means in its worst condition, it was the means of failing 90% of the entry."



First ascent of Alms Hill, Henley, by a lightweight sidecar outfit has been made by LA Welch on a 292cc O.K-Junior. The attempt was the result of a wager, but was officially observed and certificated by the ACU. The gear ratios used were 6.5, 13.75 and 21 to 1; the hill is 1 in 2.75. Welch is a private owner.

"IN THE PROGRAMME OF LAST Saturday's South Midland Trial machines were designated by their cubic capacities instead of horse-power ratings, ie, '490 Norton', '550 Triumph', '247 Levis', etc, thus following the lead set by *The Motor Cycle* some weeks ago.

"CONSIDERABLE SATISFACTION IS BEING FELT' that the choice of HM the King of Belgium in purchasing a new motor cycle should have again fallen on a British-made machine. After an extensive personal trial in competition with other makes, His Majesty eventually selected a Coventry Victor as most nearly meeting his requirements. The engine and all important parts of the machine are being made at the Coventry works of the company thus honoured, the assembling being carried out at Brussels."

"SCOTLAND YARD HAS ISSUED AN EDICT pointing out that the use of the highway for sports and purposes other than bona-fide travelling has no legal sanction. Obstruction or disorder arising from events of this nature is particularly to be avoided."



"Members of the Norfolk and Norwich MC recently arranged a sidecar outing for the poor children of the district. The photograph depicts the start of the run, which was highly appreciated by the youngsters."



"Bristol MCC gymkhana at Bristol Zoo: Competitors in the bun biting competition caused great amusement, each competitor having to eat the bun on the end of the string without touching it with, his hands. Owners of AJS, Scott, Norton and Douglas machines taking part in the competition."

"BY EVERY POST WE RECEIVE from readers cuttings from local newspapers describing police court proceedings against motor cyclists. Usually the fines do not exceed 30s or so, but at Horsham recently the amounts varied from £5 to £10. The reader who forwarded the information in this case characterises the treatment accorded to some as abominable. After perusing columns of report, we agree. Horsham should be avoided."

"ACCORDING TO A LONDON EVENING PAPER of Wednesday of last week there was to have been fought out at Brooklands last Saturday 'what is (not even excepting the Tourist Trophy) the

most arduous test of machine and man in the motor cyclist's calendar—the annual 500 mile race.' Half a column was devoted to comments on the riders who were to take part—several were mentioned by name—and the article concluded by advising readers to make their way to the Weybridge track about midday on Saturday, when they would be in plenty of time to see the closing stages. As a matter of fact they would have exactly ten weeks to wait!"

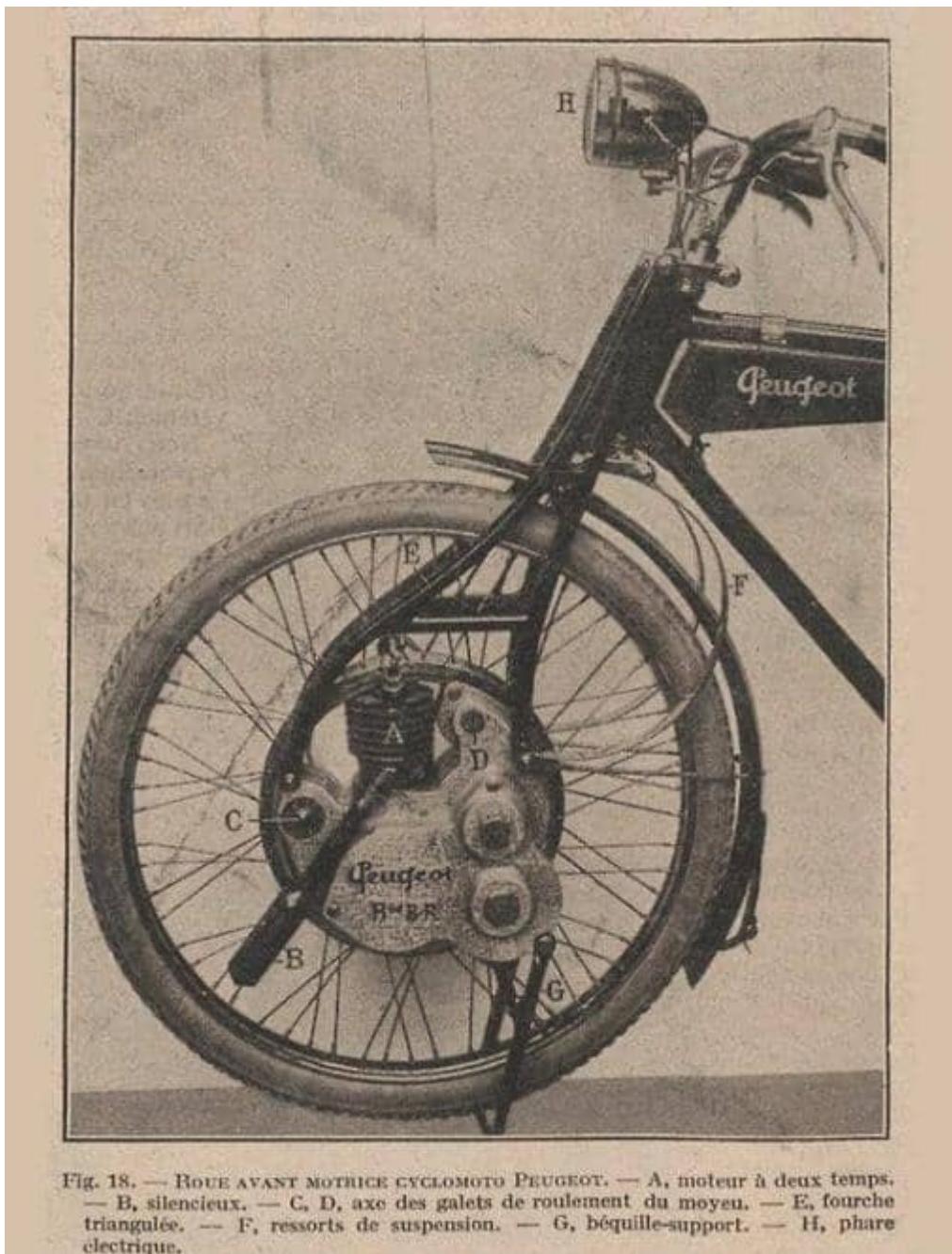


Fig. 18. — ROUE AVANT MOTRICE CYCLOMOTO PEUGEOT. — A, moteur à deux temps.
— B, silencieux. — C, D, axe des galets de roulement du moyeu. — E, fourche
triangulaire. — F, ressorts de suspension. — G, béquille-support. — H, phare
électrique.

British

powered wheels generally pushed; this Peugeot pulls.

"THE SOLITARY FAIR: IT IS VERY gratifying," Ixion opined, "to meet so many ladies riding alone. Not so long ago, if one sighted a lady riding solo, her attendant swain came along a few hundred yards behind. This week I have met at least a score of girls—well, some of them will never be girls again—absolutely by themselves. Several implications follow. A woman can feel safe unattended on British roads. Ladies' machines have acquired a good reputation for reliability. Should a puzzling trouble occur, a girl can rely on the comradeship of the road to see her

through it...Several lady readers have recently asked me to recommend an absolutely puncture-proof tyre. They say they don't mind changing a plug, but repeated wrestles with tyres nauseate them...I answer all these letters in the same way. The best safeguard against punctures is to be heavily over-tyred, which means expenditure and weight. The various dopes marketed for insertion in standard tubes have never convinced me that they are more than palliatives, capable, often, of sealing a small hole, good to delay the leakage from a sizeable hole; but generally useless in the case of a big tear. I like the puncture-sealing tubes better than the dopes, but patent tubes are necessarily expensive. If Mrs Ixion demanded a solo 'bus (I have trained her better), I should send her out on 3in tyres, with nail-catchers and pp tubes, or some dope inside a standard tube."

"CURIOUS CALCULATION—EXTRACT FROM a recent Brooklands programme: Weatherell, 71x88mm=350cc; Sheffield-Henderson, 71x88mm=348cc; Ruscoe-Blackburne, 71x88mm=347cc." *Which was right? pi x r-squared x h, gentle reader...*



"The Arbuthnot Trophy Trial winner—Eng Comdr SG Wheeler (490cc Norton) on Whitedowns Hill. (Right) Eng Lieut-Cmdr AK Dibley (998cc Indian) at the top of White Downs Hill."

"UNDER HAPPIER CIRCUMSTANCES: A correspondent reminds us that the Belgian-German frontier during the war ran at a distance of about one kilometre from Francorchamps, near the Belgian Grand Prix course, and troops on their way to occupy the Rhine towns after the cessation of hostilities presumably marched along what is now the course for the races."

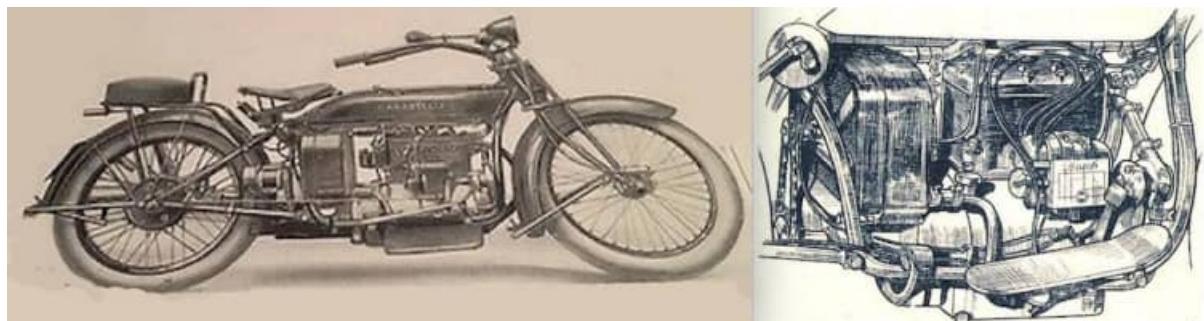
"FIRST SWISS GRAND PRIX: Motor cycles, solo and sidecar, from 250cc to 1,000cc competed in the Swiss Grand Prix this year. In the heavier machines Boisetti was the winner on a 998cc Harley-Davidson, Sperdel finishing second on a Motosacoche. In the 500cc class many incidents occurred, first place eventually being won by Lavanchy on a Douglas, with Meylas (532cc Scott) second, and another Scott third. Heusser (Condor) won the 350cc class, being the sole survivor out of six entrants; and the winner of the 250cc class was Trezza on a Moser, second place being gained by Jean, riding a Condor."

"READERS MAY REMEMBER MY CAREFULLY LAID plans for a no-trouble season," Ixion remarked. "Also how the demon of mischief who occasionally interferes in human affairs proved one too many for me. He's been at it again. What was it this time? Certainly. A high-velocity golf ball, smitten by one of those willowy knickerbockered blokes with universal joints at every hinge of his anatomy, encountered my tank at speed some thirty yards after quitting the club face. Result, new tank. I must study the literature of demonology. and learn what sacrifice will

propitiate the powers of darkness. The culprit was merely demonstrating a perfect swing, and didn't mean to hit the ball at all."

"NORTON MOTOR CYCLES, ACCORDING to an American trade paper, are 'made by Tom Norton, Glandrindod Wells, England.' Italics would lose their value in a case like this."

"APART FROM ENGLAND, IT ONE WISHES to find originality in motor cycle design one must go to Italy; an example of this is the wonderful triumph of the Garelli in the Grand Prix. The latest development is a four-cylinder 56x100mm (984cc) water-cooled machine, known as the Garabello, built exactly on car lines, with a monobloc engine, honeycomb radiator, and shaft transmission." Francesco Garabello produced his first motor cycle, a 240cc single, in 1903.



THE 984cc four-pot Garabello was the result of three years' development.

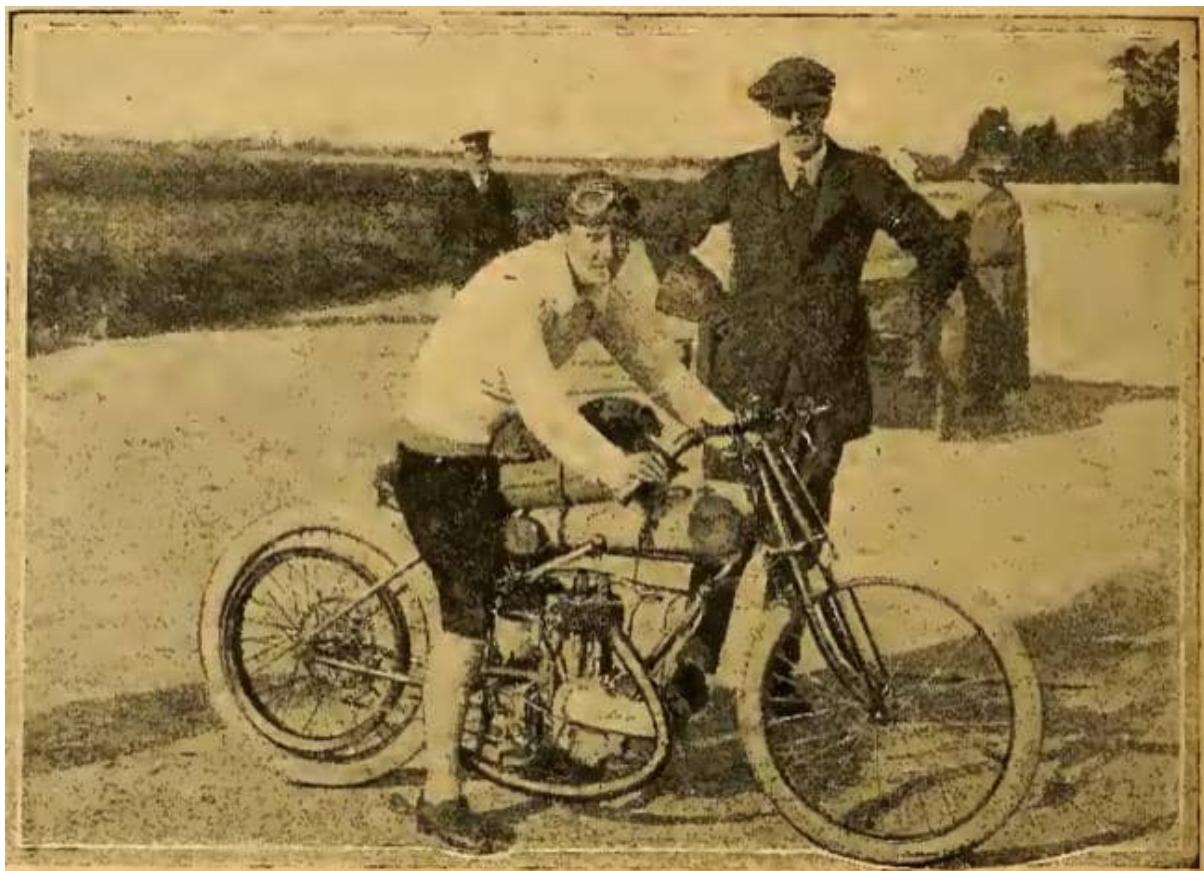
"ACCORDING TO LORD RONALDSHAY, there were 863 motor cycles in Calcutta in 1918, and 1,385 in 1920."

"THERE ARE MORE MOTOR CYCLES ridden in Victoria (Australia) than in the whole of Canada, there being 14,000 in Victoria and 9,902 in the whole of Canada. This shows what a remarkable influence good roads have on the development of motor cycling."

"SIR,—ALLOW ME TO PROTEST against the abolition of the speed limit. It is only in very rare cases that a speed in excess of 20mph is safe on the road. My own machine, I know, is capable of more, but very rarely do I let it exceed that speed. In the last year I know I have not ridden more than 50 miles in all at above 20mph. The charm of motor cycling is that it enables one to see the country. One cannot admire the scenery and drive at 20mph. Fifteen is possible, but not as safe as 12. If one wishes to go fast there is the train, but the motor cycle should not be allowed to blind along at 35mph.

'DIE HARD', Bishop's Stortford."

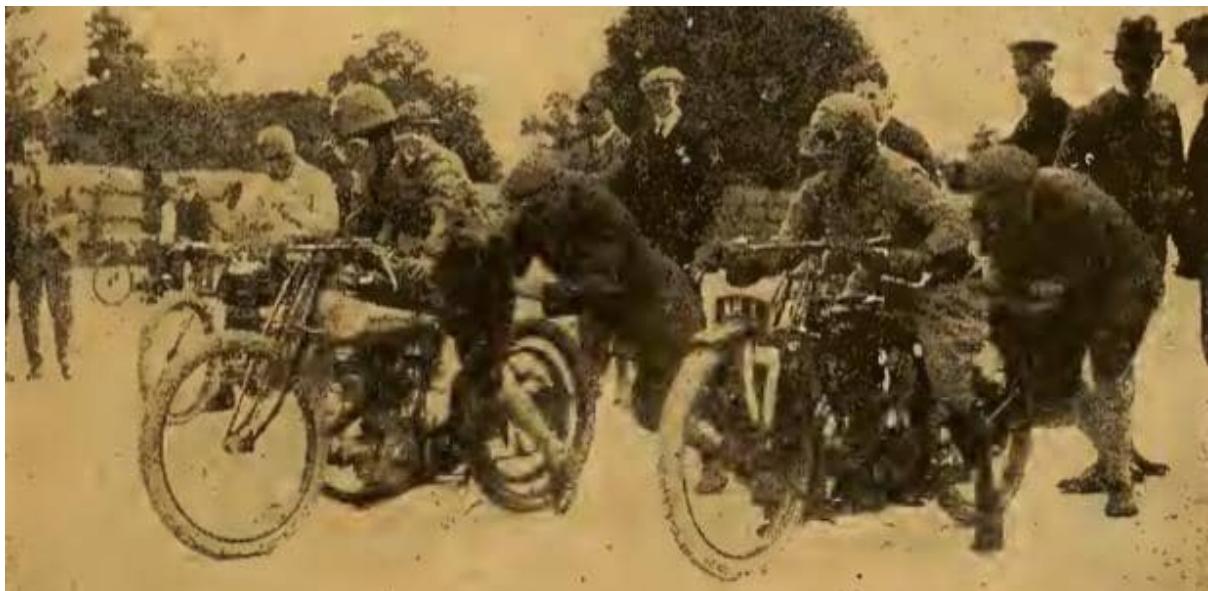
"MRS GM JANSON, RIDING A 249CC TRUMP-JAP, gained the distinction of being the first rider to make a 'double-12 hour' record in this country. The 'double-12' method of covering a 24 hour ride permits the driver to rest for 12 hours between two 12-hour stretches on the track the machine is locked up during the resting period. Mrs Janson covered 43 miles 677 yards in the first hour and thereafter lapped Brooklands at over 40mph; the three best laps being done consecutively at 46.45mph. At the end of the first 12 hours 515 miles 1,123 yards had been covered at 42.97mph. On the next day the hourly speed never fell below 44.12mph; and two hours' riding were done at 46.37mph, and the grand total mileage was brought up to 1,071 miles 1,180 yards at a speed of 44.65mph, this constituting the first British 'double-12' record. No trouble was experienced throughout the run except for oil on the magneto contact breaker. It was a remarkable performance, and Mrs Janson showed wonderful pluck throughout."



"Mrs Janson and the 249cc Trump-JAP on which she rode 1,071 miles, 1,180 yds in 24 hours at an average speed of 44.65mph. Lt-Col RN Stewart is in the background."

"AT AN INFORMAL GATHERING at the Langham Hotel in celebration of Mrs Janson's double-12 hour record on the 249cc Trump-JAP, that intrepid lady said that Col Stewart of Trump Motors, Ltd, had confessed to thinking so little of the possibility of a woman completing the distance that he just handed over an ordinary stock machine for the ride."

"BROOKLANDS MEETINGS RESEMBLE FORD CARS. They are all very much alike, and you may call them by different names without altering them beyond recognition. Last Saturday's event was run by the Ealing club, but except that the fields were smaller than usual, it might easily have been a BMCRC affair; the same people were there, and, generally speaking, the same people won. On the other hand, the afternoon was notable because of a lady competitor's win—Mrs Janson (249cc Trump-JAP) was first in the novices' handicap...Of the four starters two were ladies but Mrs Janson's track experience gave her a decided advantage over Mrs Knowles, and her greatest danger was from the scratch man, GH Ruscoe (348cc Ruscoe-Blackburne). He failed, however, by about 250 yards to overtake her; and Mrs Knowles made a good third...The winner's speed was 53.70mph."



"Mrs GM Janson (249cc Trump-JAP) and Mrs OM Knowles (349cc AJS) at the start of the 350cc Ealing Handicap."

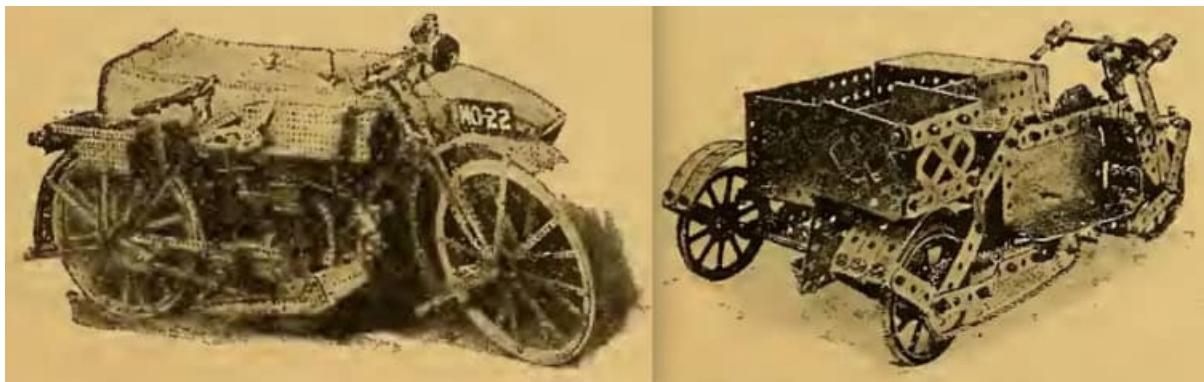
SOMETIMES IXION WAS SERIOUS: "Many speedmen consider that the Fosse Road from Leicester to Newark affords a chance for one of the finest 'blinds' in England. To my thinking it is a road which demands extreme caution. It is crossed at right angles rather blindly by a number of lesser roads and at least one important highway. Traffic on all these roads is rather sparse, and their users imagine that this sparsity confers a licence to take blind crossroads all out. I have experienced and seen so many narrow squeaks on this route that I personally drive slower over it than in most places. It is surely time that the law about main and side roads should be cleared up and strictly enforced. If this is impossible, it would be a palliative if a motoring body would erect skull-and-crossbone signs at the points where these side-lanes debouch into the big roads, and beneath them a board 'Main Road Beware of Fast Traffic!' The present perils arise from the fact that the fast through traveller doesn't know where the side roads occur, and trusts to a shadowy right of way, whilst the locals, having no more imagination than a mangold wurzel, see no harm in abutting into a stream of high-speed traffic at random until they are dead."

"GEORGE BROUH AND THE BROUH SUPERIOR are beginning to be factors to be reckoned with at Brooklands. On Saturday he won his race at over 85mph."

"FOUND ON THE ROAD: The back rest of a pillion seat on the Bath road, near Midgham, on Wednesday, the 19th inst, by Mr R Stewart Knill, who may be addressed at West End Farm, Midgham, near Reading...A lady's left-hand new kid glove on the Stratford Road, near Shirley Racecourse, on July 29th, found by Miss M Jarrett, 218, Addison Road, King's Heath, Birmingham...By Mr A Sharvell Cullwick, 74, Tettenhall Road, Wolverhampton: A pair of waterproof overalls at Newquay, on August 24th."

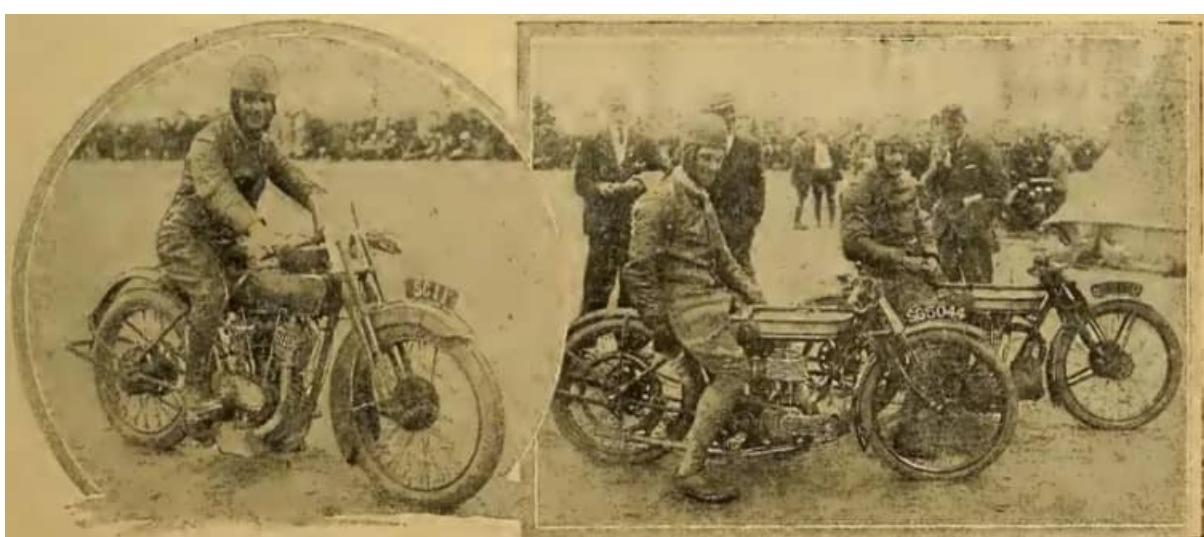
"A FOOT-CONTROLLED GEAR: The 349cc Weatherell, on which R Weatherell recently won the 100 miles handicap at Brooklands, was equipped with the three-speed gear with foot control manufactured by the Moss Gear Co, of the Crown Works, Aston, Birmingham."

"TWO PEDAL CYCLISTS riding side by side are as difficult to pass on the road as a motor coach." *Plus ça change, plus c'est la même chose...n'est ce pas?*



"A model sidecar outfit made by E Wright of Leicester, who shared the first prize of £20 in the recent Meccano competition. It possesses all the features of a modern outfit, having a four-stroke engine, valve mechanism, contact breaker and cam, two speed gear box, clutch kick-starter, chain drive, pump and drip lubricator, and is driven by two electric motors. The model is half-size the wheels being 14in in diameter. (Right) A clever little model made by a small Bristol boy. Tins miniature outfit is fitted with chain drive and clockwork mechanism."

"SCOTLAND'S BIG SPEED EVENT of the year—the Championship Meeting at St Andrews—resulted in several keenly-contested races in which local men and well-known English riders divided the chief honours... Nearly 300 entries were received. Interest centred on the championship races. DB Calder (248cc New Imperial) won the 250cc event with some ease and AH Alexander (349cc Douglas) was not very hard pressed in the 350cc race, winning by 800 yards or so; his time for the twenty miles was 23min 25ec, an average speed of 51.2mph for a 10-lap, 20-mile course. No less than 30 competitors lined up for the medium-weight (560cc) championship, and by superior cornering, CP Wood (532cc Scott Squirrel) came home first, only to be disqualified in favour of Graham Walker (490cc Norton). Wood's disqualification is said to be due to the length (or shortness) of his exhaust pipe. There was a regrettable accident owing to DS Alexander and DB Calder, on Nortons, colliding. Both were seriously injured. Only 10 started in the 1,000cc race, also over the 20-mile course, and Geo Grinton (989cc Harley-Davidson) won easily from FA Hunter (975cc Brough Superior) and RJ Braid (998cc Indian), who finished in the order stated. Grinton's speed was 56.8mph."

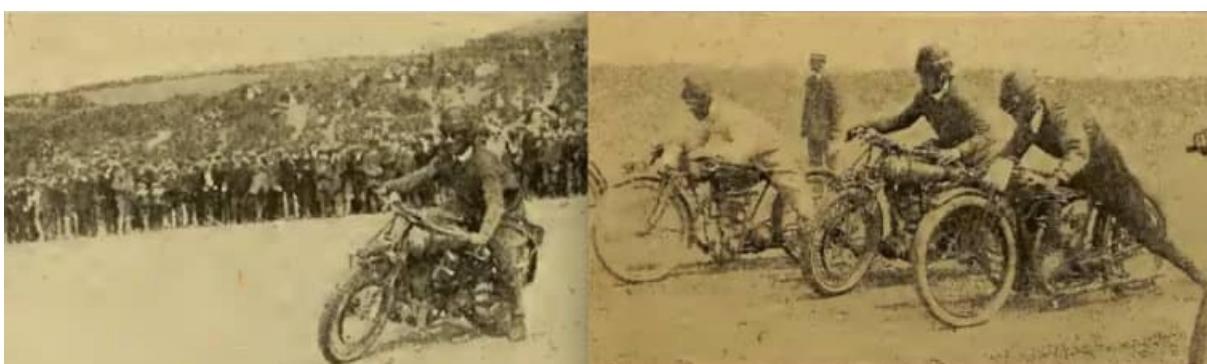


"Geo Grinton (989cc Harley-Davidson), winner of the Heavyweight Championship. (Right) Norton experts. On the left is Graham Black, who was unsuccessful against Grahame W Walker (right) in the 560cc handicap."

"ONE CAME AWAY FROM the open speed trials at Pendine on Monday reassured that motor cycle racing is the finest of all sports. Everything combined to make the day an enjoyable one—sunshine, a vast expanse of not-too-wet sand, satisfactory fields, thrilling racing, and—George Dance. Not that the Sunbeam Wizard, now happily recovered from his accident at Catsash, monopolised everything—other exceptionally good men on good machines there—but he certainly won all the events in which he entered, including most of the Welsh championships for this year. There was no split-seconds timekeeping, formula calculating or handicapping, nor an endless procession of solitary riders whizzing by at irregular intervals; each class was a race—usually either twice or five times round a two-mile there-and-back course—and everybody started at once, or as nearly as readily-sinking wheels permitted...11 'unlimited' machines lined up, incidentally all 500cc mounts except Bush's Harley-Davidson and H Davies' Brough-Superior. Davies steered his big machine in an exceedingly capable fashion, and all Dr Lindsay could do was to hang grimly on to second place, Bush finishing less than 100 yards behind."



"Competitors getting away in the 350cc race. Wet sand made the process an uncertain one."



"Waiting for the starter's flag to drop in the championship sprint (from left): C Sgonina (Sgonina-Special), Handel Davies (Brough-Superior) and George Dance (Sunbeam). (Right) Handel Davies and the Brough-Superior proved an invincible combination in the closed events and was always well placed in the championships. Davies cornering when leading in the unlimited race."

"AFTER SUCH GLORIOUS WEATHER on the Bank Holiday Monday for the ACU open event at Pendine...it was disappointing to the Neath club to find that the first Welsh TT would have to take place under unfavourable weather conditions. Out of a very large entry few finished, and it is worthy of note that the little machines held their own for reliability. The outstanding performance was that of the two Scotts, ridden by Clarence Wood and Ivor Thomas

respectively. Wood, on a 532cc Squirrel took the lead at the commencement, maintaining this position throughout. Each lap measured five miles. In the first the Scott set the pace. Wood leading by 50 yards, followed by Hassall (490cc Norton), Dance (499cc Sunbeam), and Grinton (993cc Harley-Davidson). Several competitors fell out even thus early, mostly due to plug and clutch trouble. At 20 miles the positions were: (1) Wood, (2) Dance, and (3) Hassall, Grinton having previously run into the depot for replenishment.



"Clarence Wood and his 532cc Scott upon which he won the premier event."

Among the smaller (250cc and 350cc) machines, which had 50 miles to cover, Edwards, on his ohv AJS, gained a remarkably fine lead, and was lapsing most consistently. M Isaac, Carmarthen (New Imperial), retired with eye trouble, but TA Jones (Ivy) still carried on, his little machine humming away in fine tune. Owing to Dance's delay Wood became a lap in advance; Hassall had fallen behind with plug trouble. However, at 35 miles Wood stopped to refill, and Dance picked up lost time in a marvellous manner. On restarting Wood literally screamed up the course, still maintaining the lead. At this time H Davies (Brough Superior) completed his first lap, having been delayed with magneto trouble, and Edwards (AJS), although he had stopped for a refill, led by a lap all the machines in his class. Ivor Thomas (Scott) gradually crept into a position, running second to Dance in the 500cc class. Wood completed half the distance in 53min 10sec, and led by four miles, while Grinton, who had apparently been having bad luck, now forged into third place. The positions at half way (50 miles) were: (1) Wood, (2) Dance, (3) Grinton. At 65 miles Wood, still leading, visited his depot, being off the course for nearly four minutes. Simultaneously loud cheering, greeted Edwards (AJS); for he had completed his 50 miles, and thereby won the Junior Cup. The heavy downpour had now eased somewhat, and the positions were: (1) Wood, (2) Dance and Grinton (level), (3) Ivor Thomas, the latter receiving loud cheers from his club mates. Evans, on a 250cc New Imperial, now finished, winning first position in the 250cc class. Hassall, dogged by plug



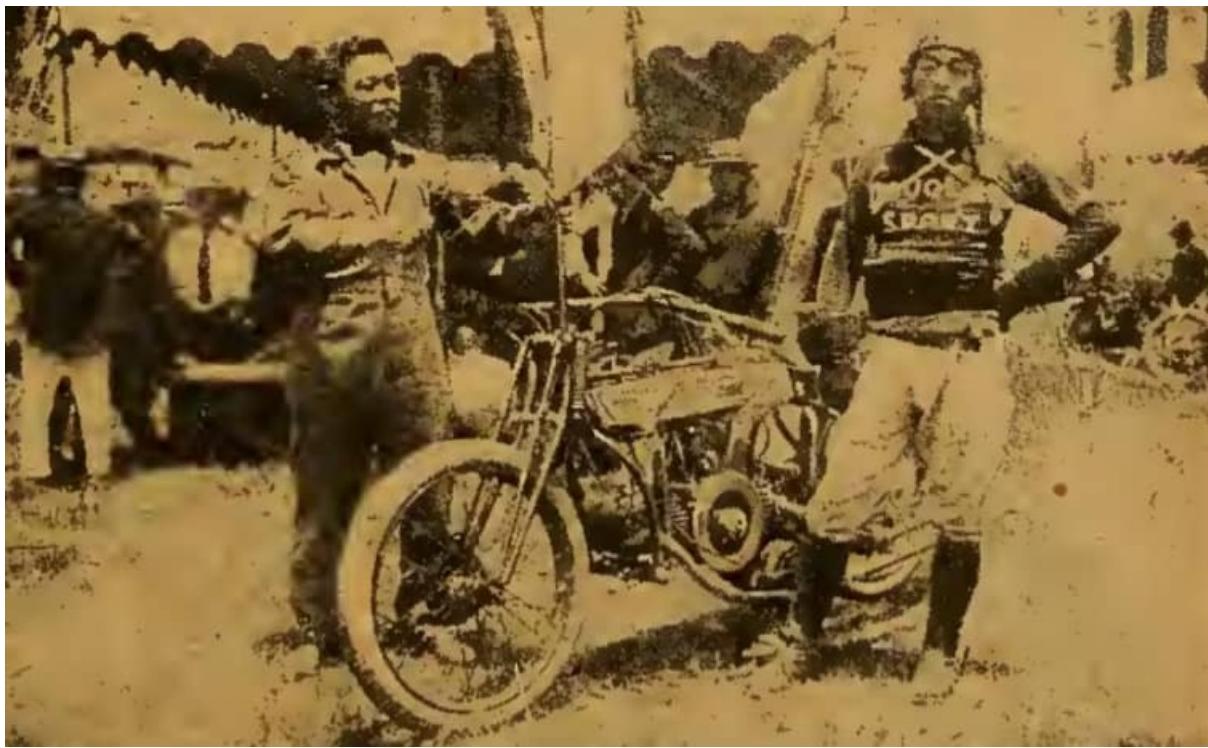
From left: "TA Jones (349cc Ivy) second in 350cc class; JN Roberts (249cc New Imperial) second in 250cc class; and J Evans (249cc New Imperial), first in 250cc class."

trouble, returned to the fray. At 90 miles Dance, who was running second to Wood, had a remarkably quick fuel replenishment, and once more led the 500cc class. However, 'there's many a slip 'twixt cup and lip', and this was exemplified in Dance's case, for at 98 miles his magneto gave out and he was grateful to be towed in by Messrs Pratt's representative. Previous to Dance's misfortune Wood completed his run, doing the 100 miles in 108min, and it is remarkable that there was only a difference of 50sec in the times put up by him in the first and latter half of the race. Owing to the retirement of Dance, Ivor Thomas, who had been lapping steadily and consistently throughout, now became the winner of the 500cc class, with Hassall (ohv Norton) second. Results—100 miles (Unlimited): 1st, CP Wood (532cc Scott), 108min. 100 miles (351-500cc): 1st, Ivor Thomas (Neath) (481cc Scott Squirrel); 2nd, Hubert Hassall (490cc Norton) (No times taken). 50 Miles (250cc): 1st, Jack Evans (249cc New Imperial); 2nd, JN Roberts (249cc New Imperial). 50 Miles (251-350cc): 1, W Edwards (349cc AJS); 2nd, TA Jones (349cc Ivy); 3rd, LF West (349cc Massey-Arran)."

"MORE AMERICAN SUPREMACY: 'This issue is a humdinger, don't you think?' asks an American contemporary in very big type. One can only weakly confess that probably it is."

"ON A RECENT CLUB TOUR of Cornwall and Devon the Marlow & DMCC carried a portable wireless set."

"THE OTHER JAPS: The Japanese are taking up motor cycling with considerable enthusiasm, but, according to Mr HC Lepper, the secretary of the Yokohama MCC, they favour, for some unknown reason, heavy American machines, which are much too high to allow the riders to touch the ground with their feet. Many spills and bruises are the result."



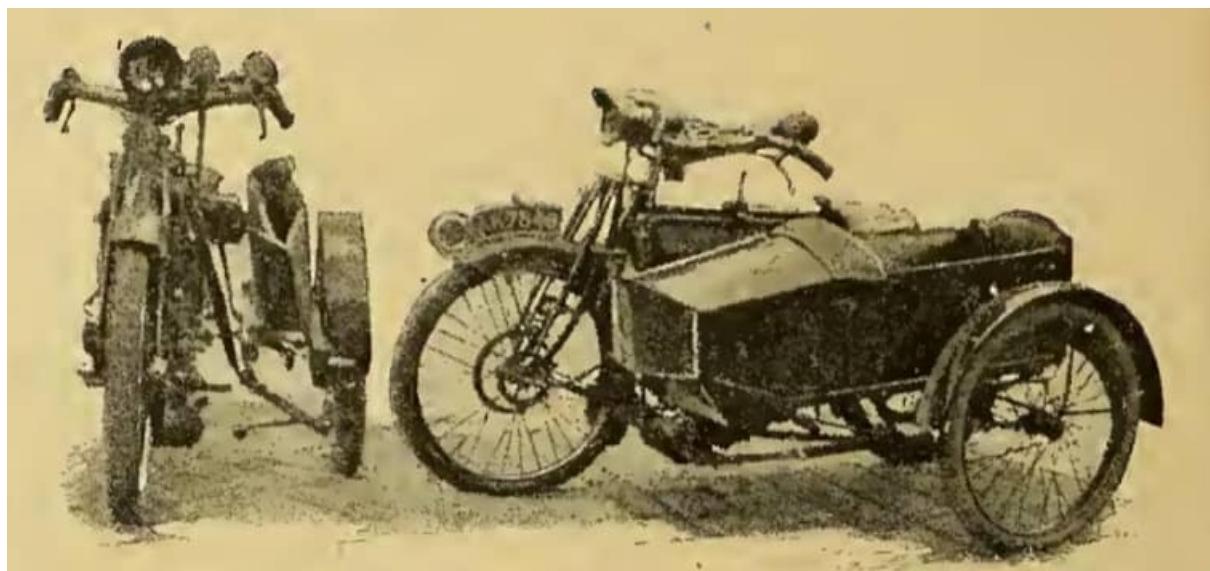
“Championship meetings’ are now the vogue in Japan, the enthusiasm shown at the races being quite remarkable. The rider on the right won the Naruo championship on a 494cc.”

“A DISTRESSED PATERFAMILIAS APPROACHED ME this week,” Ixion reported, “requesting that I would wean his 17 year old son from his perverse passion for motor cycles and all things connected therewith. I refused with oaths. Papa’s grouse was that Sonny ought to have been concentrating on logarithms or something readily convertible into £sd at a later stage of his career. My refusal was based on the fact that a growing lad usually spends a good many hours of his time in dreamland, and he may easily elect to dream of costlier and less healthy commodities than motor cycles. True, the motor cycle will certainly soil his paws; but there are worse alternatives. It is just the first edition of calf love—silly, perhaps; innocent, certainly; harmless, probably. I asked papa what was his leading, interest in life at a similar age; and papa went rather pink. So that’s that.”

“LOST HIS PISTON. I SUPPOSE you never did that, reader? Neither,” said Ixion, “did I. I have dropped most parts of my machine and its equipment on the road at various times, including my pillion passenger. But young Fitz Wilkins actually contrived to lose his entire piston. The machine was originally a sports bus, and he proceeded to super-sport it. Took off everything removable. Balanced the road wheels. Streamlined the tubing of the frame. Finally he got to work on the inside of the engine with drills and file. The pace gradually rose from the manufacturer’s 60mph till two reliable observers timing with 17s 6d Ingersolls reported that he had done the flying mile at 78.2mph. “Just a little more drilling,” mused Fitz Wilkins, “and I shall get 80mph!” Perhaps he did. He found pieces of the bottom of the crankcase. Twisted relics of the conrod. Possibly one-third of the gudgeon pin. But nowhere even the tiniest portion of the piston. Which indicates that amateurs should leave well alone.”

“AT THE LEICESTER COUNTY COURT ‘an expert in motor cycles’ stated that it was very risky thing to start a motor cycle by running along with it. Such a silly statement would not matter much if it had not been responsible for a motor cyclist being found guilty of negligence when his

machine crashed into a shop window, judgment admittedly being swayed by the 'expert's' opinion."



"Folding sidecar chassis are not uncommon, but a collapsible body and chassis certainly contains an element of novelty. An outfit embodying this feature is now being tried on the road by its designer, Mr Edward Bracewell of Keighley, and so far has proved satisfactory. The chassis is constructed of spring steel and, excepting the detachable bottom, the body is also of steel."

"THERE ARE NOW 2,415 MOTOR CYCLES in the control of the War Office, while in 1914 there were only 24. In the Royal Air Force the motor transport section has 512 motor bicycles and 316 sidecars."

"REPLYING TO A QUESTION in the House of Commons, the Secretary of the Ministry of Transport, Mr Neal, said that he had no evidence that the number of accidents due to pillion riding was increasing, and that he did not think there was sufficient ground to justify legislative action."

"Sir,—In the House of Commons on the 3rd inst a member put up a question trying to prohibit pillion riding. I see that Hansard somewhat misreports a supplemental question of mine, a correction of which I have sent in. In the meantime, I do not wish it to go abroad among my many motor-cycling friends that I am one of the kill-joys who wish to prohibit pillion riding. I have during my life had the good fortune to take some small part in almost every game and sport. I rode on a motor bicycle (not for very many yards!) in 1895 in France, and have driven cars almost since they were invented. There may be a small risk in pillion riding, but it is a very, very small one as far as the careful cyclist is concerned, and certainly no more than the risk entailed in such winter sports as ski-ing and tobogganing or fox hunting. To the average Englishman a slight spice of danger detracts in no way from the sport, nor will it, I hope, ever do so. I am a keen champion of the motor cycle, and the joy it brings to the boys and girls of England, and, as far as I am concerned, I will certainly do anything I can to resist putting up the German 'Verboten' with regard to pillion riding.

SIR BARRY BRITTAI, KBE, MP."

"A FEW MONTHS AGO the fine road between Sunbury and Staines was remade with tarred macadam. Already it is developing unpleasant waves. When will the even-surfaced road on solid, unyielding foundations materialise?"



"A fleet of Bradbury machines which took part in a recent demonstration run From Oldham to Blackpool. Decorated with colours and bearing large cards displaying the maker's name, this string of two dozen or so machines of the same make attracted considerable attention."

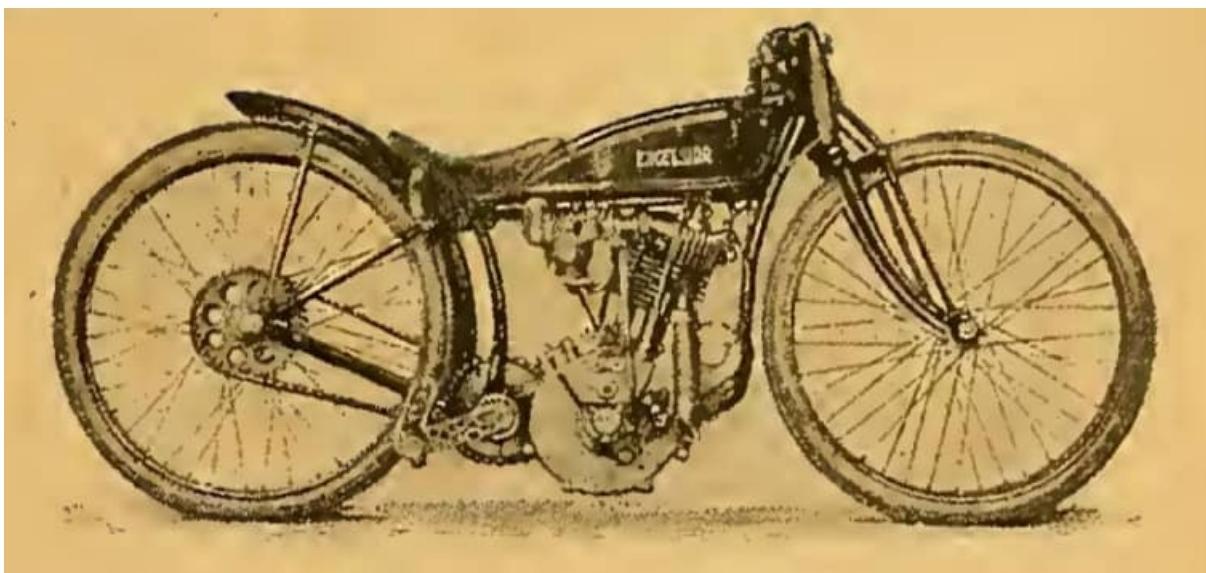
"RECENT MAILS FROM BATAVIA (Java) brought news of a motor cycle race meeting which was held on the racecourse at Welterneden, a suburb of Batavia. The grass track had been rolled with a steam-roller and re-turfed in places, and some excellent racing was witnessed. Strict police regulations were in force, and during practice no rider was allowed to exceed 50mph. Competitors had to wear racing helmets and to sign a declaration that they had previously ridden on the track and that none but themselves were responsible for their accidents. A European doctor was provided by the race committee. The circuit was 80ft short of a mile)." Class A (400cc, four laps) was won by JK Fellner (ABC); Class B (500cc, five laps), de Raadt (Douglas); Class C (750cc, six laps), de Raadt (Douglas); Class D (1,000cc, eight laps), de Raadt (Indian); Class E (eight laps, 1,250cc), Van der Kop (Harley-Davidson).



"An ABC ridden by JK Fellner, which secured first place m its class at a race meeting in Batavia (Java)."

"THE MOTOR CYCLE IS NOW THE MOUNT of every man, and is in use in every clime. True, we have not yet heard of any Eskimo running a machine on the shores adjacent to the North Pole, but from almost every other part of the world we have letters from readers who, irrespective of road or climatic (renditions, use their machines for business and pleasure. For long it has been recognised that the so-called colonial conditions are not general in the overseas markets, and that one may find roads just as good as those in this country in almost every country where the white man has taken charge. On the other hand, there is rough and bad going in these islands equal to the worst roads in Africa or the Antipodes. Hence the modern trials are developing motor cycles along lines which will render them suitable for every man's needs wherever he

may reside. Two intrepid motor cyclists have started to ride to the home country from Singapore. They are FAF Johnstone and ED Hill, of Johore, and their route includes Siam, Burma, India, Mesopotamia, Asia Minor, Turkey, the Central European States, Italy, and France. They are well provided with spares and maps, and are quite confident that they will accomplish the journey, which they estimate will occupy eight or nine months. Johnstone is riding a Triumph while Hill is mounted on a Douglas."



"Not for the British market. Clams and synthetic whisky are not the only products of America that seldom reach Britain; this single-cylinder, single-gear 'American X' with rigid forks, for example, would be but slightly less useless on Brooklands than on English roads. Yet it, no doubt, does well on the saucer-tracks of the USA."



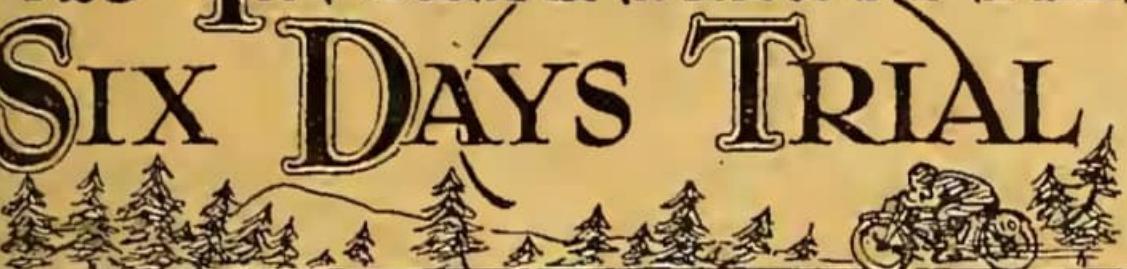
"We are becoming accustomed nowadays to astonishing performances from tiny engines, but by 'tiny' we generally limit ourselves to units between 150-250cc. With the advent on the British market of the Belgian-made 45cc ohv Clement engine our scale of descriptive adjectives will have to undergo modification. For £17 the engine will be despatched to the customer by parcel post! It is intended to be attached in front of the bottom bracket of an ordinary pedal cycle, and a rear sprocket and petrol tank have been evolved to fit, as had a wind scoop as an aid to cooling."



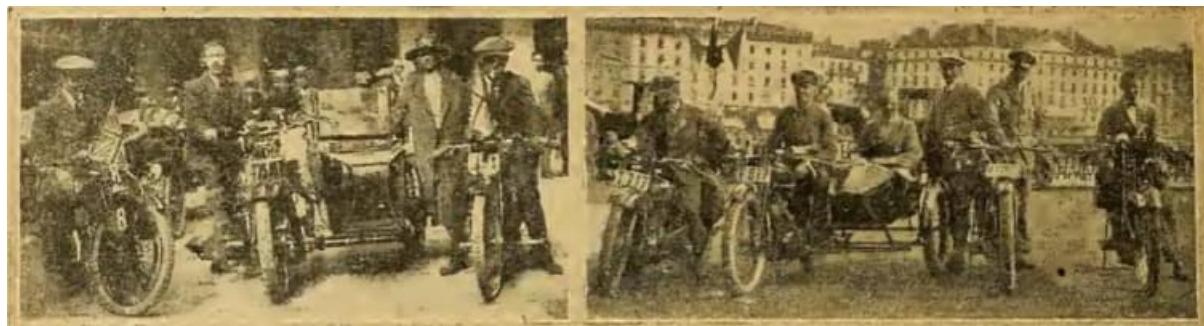
"Motor assisted bicycles are becoming exceedingly popular in France, and every few weeks a new make is put on the market; numerous races and competitors are being organised for this class of machine. An interesting example recently introduced to the public is the Micromoteur, a single-cylinder 63cc two-stroke which appears to be the smallest and lightest engine for a bicycle built in France, its weight with tank, but without fuel, being 161b. The engine is said to develop $\frac{3}{4}$ hp at 3,500rpm...The Micromoteur is spring suspended to the steering tube and the front forks, and can be mounted on any bicycle. An original and patented type of friction drive to the front wheel is employed."

"AN UNFORTUNATE READER PURCHASED a motor cycle of a little-known make," Ixion reported, "and on delivery found the steering was rather stiff. After much worry he dismantled the steering head and found that the top half of the lower ball race had been completely omitted by the erector, together with two of the balls. On complaining to the makers, he received a postcard, which I copy verbatim: 'Dr Sir,—Your letter to hand. In our opinion the ball race had been over-hardened and split up gradually disintegrating en route. This opinion is confirmed by the absence of the other balls. Yrs faithfully, ———.' There is a delicious air of attachment about this postcard which pleases me enormously. The matter is treated purely and simply as a technical problem, apart from all sordid considerations of £sd or such personal matters as inconvenience to the owner. It reminds me of the chemist whose medicine poisoned the sick wife. When the irate husband sent a lawyer's letter complaining that 10 grains of arsenic had been put in a tonic, the chemist replied: 'Yours of the —th inst to hand. You are in error. It was strychnine, not arsenic!'"

The INTERNATIONAL SIX DAYS TRIAL



"INTERNATIONAL TRIALS IN SWITZERLAND: In England we have always been accustomed to judge the importance of a trial by the number of entries received. Rather should we ascribe importance to the quality of the entries, and to the lessons the trial teaches. For the International Trials there are but 45 entries. More is the pity; but our British representatives are first-class riders, who are mounted on the best machines the world can produce. 'Truly,' as a Swiss official remarked to us, 'you have sent us your 'aces'! Included in our team we have two TT winners, who are pitted against the best Swiss motor cyclists who won the Cup in 1920, and who held it in 1921 against the strongest team we could put forward; moreover, they are competing on their own soil, and so have the advantage of our men, since no one in our team knows a yard of the very difficult course, which has not its equal in the British Isles. Whereas last year there were only two international teams, this year there are three, the third being that from Sweden. The Swedes have proved themselves to be true sportsmen, and sent their Husqvarna sidecar outfit by road, taking four days from the port of landing in Germany. The three international teams were composed as follows: England—GS Davison (249cc Levis), A Bennett (492cc Sunbeam), PW Giles (800cc AJS sc); Switzerland—J Morand (248cc Condor), A Robert (496cc Motosacoche), E Gex (994cc Motosacoche sc); Sweden—B Malmberg (494cc Husqvarna), G. Göthe (494cc Husqvarna), P Swanbeck (995cc Husqvarna). Even



"Competing for Britain: A Bennett (492cc Sunbeam), FW Giles (800cc AJS sidecar) and GS Davison (247cc Levis). (Right) Swedish representatives' debut: they are all mounted on Husqvarnas, Sweden's leading motor cycle."

though the French who live on the Swiss border did not send a team, two French riders were entered. There were two Dutchmen and one Italian, while practically one-fourth of the riders were English. As last year the examination was in the Electoral buildings, and was carried out with characteristic thoroughness. Great attention was paid to silence, and many a rider had to 'fish-tail' the end of his silencer. Two days were taken up in the examination of the machines, which with their riders were weighed, while all- important portions, such as crank cases, wheels, frames, and tanks were sealed. Three British club teams are competing for the Team

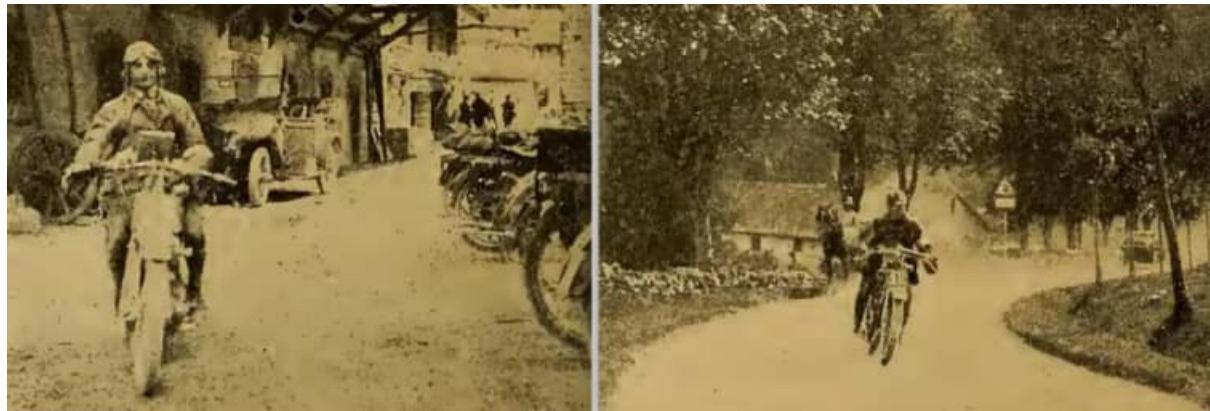
Prize—the Worcester & DMCC, the Bradford & DMCC and the BMRC. **FIRST DAY'S RUN: GENEVA—CHAUX DE FONDS (124 MILES).** The day's run was an easy one, just intended to introduce the riders to the type of country they would have to traverse during the remainder of the trial. It is not surprising, therefore, that all who started reached their destination to time...Once the blue-green waters of the lake had been left the competitors started to climb; first over the four miles climb up the Col de St Cergue rising nearly 2,000 feet but over smooth, gradually rising roads with easy bends. Then the road flanked the sides of the mountains overlooking the lake, descended a little, and then started to rise—the beginning of the Col de Marchairuz—the first observed hill. This climb was a long one, well over four miles of gradient, easy at first but with a final hairpin of about 1 in 7 on the inside. Both the British team and the other British riders looked perfectly happy. Giles on the 800cc AJS sidecar, with his wife as passenger, looked as if he were on a holiday tour. Our two 'aces', Bennett and Davison, were seemingly just as content, while the Raleighs and Quadrants made light work of the



"A river of ice, the Rhone Glacier from the Furka Road. (Right) As seen from the Grimsel Road, the magnificent Handeck Fall."

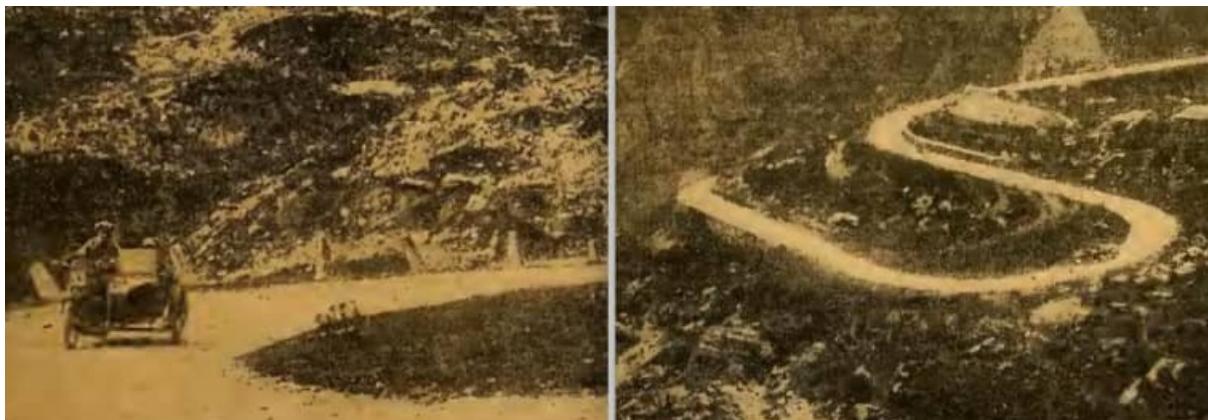
hill. Naturally such a climb in no way worried the Swiss-born Condors and Motosacoches, while the Swedish Husqvarnas made excellent ascents...A five miles descent brought the competitors to Chaux de Fonds, where the day's run terminated. All who started arrived without the loss of a single mark, despite several secret checks. **SECOND DAY'S RUN: CHAUX DE FONDS-ZURICH (174 MILES).** Friday's run was considered to be the most difficult of any. It had not the enormously long climbs of Saturday's route, but judged from English standards the hills were both long and severe, averaging from three to four miles and comprising country roads of a nature which we call 'colonial'. Despite blue skies, a hot sun and a cool breeze to temper its heat—in a word, ideal weather—the severity of the course told its tale of victims, and three were removed from the list of survivors. British and Swiss teams were both intact, though of the latter Robert (Motosacoche), the champion rider of Switzerland, was caught out at a secret control, the accuracy of the timing of which was indisputable, and so lost marks. During the second day, therefore, the British team was leading; still, with four more days to go much could happen. Of the gallant Swedes, Captain Svanbeck (Husqvarna) struck a boulder with his gear box and had to retire, L Divorne (248cc Condor-Swiss) and WE Clark (653cc Quadrant) had to retire, while several lost marks. **THIRD DAY'S RUN: ZURICH-LUGANO (181 MILES).** A long day's run was before the competitors as they left the beautiful town of Zurich at 5.30am on Saturday...Gibson

pluckily started, though he could not put his foot to the ground. As to Clarke (Quadrant), who fell five times on the previous day, which was the most severe of the trial, his various troubles delayed him so much that he had to retire. Thursday's run was the first to bring the competitors among the High Alps, entailing the climbing of very long ascents, and passing through the most beautiful scenery Europe can produce...After the Pfaffikon control the competitors very gradually ascended along the Linth valley, between two chains of high mountains, on which there was far more snow than last year, and proceeded to Linthal village, which marks the



"Francois Franconi (496cc Motosacoche) arriving at Vallorbe, the lunch control on the first day. (Right) G Fuhrer (994cc Motosacoche) climbing the zig-zag up to the Vue des Alpes."

beginning of the Klausen Pass. Talking to the hotel keeper about the pass, he said: 'Do you see that mountain?' pointing to a cone-shaped peak which dominated the village. 'Well, you will have to climb as high as that.' It did not seem possible; but he was right. Mounting en lacets—by zig-zags—with fairly loose surface at every corner, the climb went up and up, then suddenly, just as the trees grew thinner and the country assumed that grand air of desolation which exists just below the snow line. Far down in the valley could be heard the distant echo of the competitors' exhausts, doubtless disturbing the chamois in their lofty haunts. Despite the altitude attained—6,000ft the gradients are not worse than 1 in 10...Bennett (Sunbeam) soared up comfortably, while even Davison's little Levis did much on top gear and never needed a lower ratio than second...At the summit the competitors had to pass through two walls of snow, which had been cut to clear the road...after lunch came the 30 miles' climb up the St Gothard, reaching an altitude of 6,872ft...Just as the competitors reached the summit a cloud suddenly formed...in a few minutes the sky was covered and rain fell. Down, down went the riders, winding corkscrew fashion, down the sheer side of the mountain, slithering round the disgracefully loose corners, which rapidly became greasy with the torrential rain...Few marks were lost on this, the third day, and none of the British team had any trouble. **FOURTH DAY'S RUN: LUGANO-BERNE (183 MILES).** An early start was made on Monday, the first man leaving at 6am in pouring rain. It thundered and lightened as the competitors prepared for another arduous run, and before starting Giles (AJS sc) had to change a tube...from the bottom of Monte Genera, the hill out of Lugano, to the top of the St. Gothard is 52 miles of steady up grade, with only one interruption, and there are as many hairpin turns as there are miles of hill...On entering Altdorf the competitors had to turn sharply to the right to reach the control, and only those with a good memory reached



"FW Giles (800cc AJS sidecar)—The passenger member of the British team—on the long ascent of the Klausen Pass. (Right) The road turns and twists up the mountain side on the Klausen Pass."

their destination without trouble. Bossetti (Raleigh) wandered all over the town and protested in language (French) more forcible than polite. It was pointed out to him that it did not matter as he had arrived punctually, but even that did not pacify him. Bennett (Sunbeam) bewailed the fact that he had lost a spare cover and tube some miles back. He, like others of the English riders, had suffered punctures, and on Saturday had had three and saved another by pulling out a nail just in time. **FIFTH DAY'S RUN: BERNE-CHATEAU D'OEX (192 MILES).** It was a journey of superb beauty. First the men skirted the beautiful lake of Thun, then passed through tourist-favoured Interlaken, with its famous view of the Jungfrau, then along the shores of the equally lovely lake of Brieuz to the piece de resistance of the long day's journey—the ascent of the Grimsel pass...Only slightly inferior to the St Gothard in altitude, the Grimsel, though it has a better surface, is quite as steep and was far more difficult to climb; on the St Gothard the average speed was only 12mph, while that for the Grimsel was 19mph and the sidecar machines had to work hard to maintain it. Motor vehicles are controlled on all the principal Swiss Alpine passes; a speed limit is set which must not, be exceeded, and a toll is paid and a pass given at the foot which must be surrendered at the summit. Now the Swiss Motor Cycle Union had definitely arranged with the cantons concerned that these formalities should be waived during the trial. Notwithstanding a Swiss competitor, Souvairan (994cc Motosacoche sc), was held up at the inn near the summit by a gendarme; who pointed a revolver at him. M Delessert, clerk of the course, fortunately arrived in time, but could make no headway with the gendarme. He then saw the proprietor of the hotel, a former deputy, pointed out that this was not a courteous way to treat visitors of various nationalities, and persuaded him to telephone the cantonal government, with the result that humble apologies were offered. Souvairan lost 25 minutes, which was of course allowed him...one of the features of the day's run was the extraordinary changes of



"L Divorne (248cc Condor) and L Bonvin (994cc Motosacoche) checking in at Vallorbe."

temperature, first the chill of the early morning, the moderate temperature of the valleys, the cold on the summit of the pass, and then the tropical heat of the afternoon, followed later by a quite chilly climb over the Col des Mosses and an arrival at Chateau d'Oex, just as a thunderstorm heralded the approach of torrential rain. **SIXTH DAY'S RUN: CHATEAU D'OEX-GENEVA (175 MILES).** Meyer (994 Motosacoche) had a nasty tumble at the start, and hurt his nose badly. After leaving the stopping place for the night the competitors climbed the Col du Brüch, the same observed hill as was used last year. First to arrive was Clerc (Condor), whose engine came to a standstill near the last bend, and he arrived pushing and much exhausted. Examination proved that a ball bearing had gone in his gear box, and he was compelled to retire...After Montreux, the luncheon stop, a detour was made into the high country dominating the Lake of Geneva. The riders then descended to the excellent road along the lake almost into Geneva, when a turn to the right was taken and a steep hill ascended. Thereafter the road—excellently marked—wound in and out and round about after the manner of an ACU one-day trials course, brought the competitors o the flat road over which the speed test was held in the reverse direction to last year, and on through more winding lanes to the Donzelle, the worst gradient in the trial...all the English team climbed well, but Giles (AJS sc) swerved badly, as his back tyre was flat. There was a level-crossing at the bottom of the hill which could not be rushed, as it was approached after a right-hand bend, and naturally the level-crossing caused several delays...Six miles only separated the Donzelle from Geneva. On arriving at Geneva the competitors' machines were stored in a school...and there the



"On the Klausen Pass—a long, gruelling ascent, which tests to the full the modern high-compression air-cooled engine."

officials toiled all day over the results...Then the machines were examined as to their condition, and finally the results were announced at a banquet held in the Kursaal. M. Jules Neher, President of the Swiss Motor Cycle Union, occupied the chair...A delightful welcome was accorded to riders and officials...M. Neher made three excellent speeches, in English, French, and- Swiss-German patois, and thanked both riders and officials...For the second time a British team has attempted to wrest the trophy presented by the British Motor Cycle Manufacturers Union from the Swiss, who have held it since 1920...It was beaten by one mark. It was a splendid team of first-class riders, and had it not been for one small technical failure they would have been successful. A broken saddle spring, for which marks were deducted during the final examination, caused the penalty which lost the trophy. It is hard luck indeed, but Britain's representatives rode well, their machines proved their reliability and hill-climbing capacity, and they proved themselves equal to, if not better than, their Swiss rival's, especially when it was considered that the total cubical capacity of their engines was less than that of the Swiss machines. **Trade team results:** (1) AJS, (2) Harley-Davidson, (3) Motosacoche. **Club team results:** (1) Zurich MCC, (2) Worcester & DMCC, (3) Motosacoche Club. **Best performance of a foreign machine**, offered by the Federal Police, GS Davison (Levis). **Best performance of a Swiss machine**, H Dinkel (248cc Condor).

"WHEREAS THE SWISS TEAM gained 2,990 marks during the International trial, the Worcester MCC team—Giles, Williams, and Harris—all on AJS machines, beat them as regards a total number of marks by 4. Bravo! Worcester."

"PRIOR TO THE START of the International Trial GS Davison was fined for exceeding the limit. At the end of the event he won a handsome gold watch presented by the Swiss Federal police, so now his feelings towards them have changed for the better."

"FOLLOWING THE CONCLUSION of the International Six Days' Trial, the Summer Congress of the FICM was held at the Swiss AC premises at Geneva. Delegates attended from Great Britain, Switzerland, Belgium, Holland, France, Denmark, Sweden, Italy and the United States, and several important decisions were made. Among these were, that motor cycle interests should

be looked after at the International Traffic Congress by delegates from the FICM; that racing helmets should be compulsory in all races held under the Federation rules; that in Class E (1,000cc) records the minimum tyre size should be 65mm; that on the occasion of record attempts the only parts of a machine which might be changed were the plug, chain or belt, wheel and/or tyre; and that mile and kilometre records might be made from a standing start.

Affairs in Spain appeared to be in a somewhat tangled condition. The Royal Spanish Motor Cycle Club (Real Moto-Club d'Espana) is really the governing body, but the Royal Moto-Club of Cataluña is the more active motor cycle body, and is fully qualified to take the lead. For some years the Real Moto-Club d'Espana has been promising to put its house in order, but it has done nothing. It is therefore proposed to give it one month to give a satisfactory reply to the FICM, and failing that to exclude it from the Federation and to appoint the Royal Moto-Club of Cataluna in its place. At the same time it was resolved to put the full facts of the case before the patron of the club, HM The King of Spain."



"Recently GA Cade rode a 164cc Economic from London to Edinburgh under ACU observation. The journey was done in three days and the average speed was about 17.02mph. There were only four involuntary stops, all of a minor nature. An official certificate is being issued."

"HAND-SIGNALLING EXTRAORDINARY: A reader tells us that while riding behind a large American car, nearing some cross-roads, the word 'Left' appeared on a device over the rear number plate, and simultaneously a hand shot out from the off-side of the car; to crown this, the driver accelerated and kept straight on his original course."

"DURING THE SUMMER I(XION) HAVE ridden three separate Scott Squirrels, two of which were supplied to humble and obscure persons in the ordinary way of business, and—much to the

credit of the firm—were quite as hot as another delivered to our staff. When riding them a mute wonder assails me as to how they lost the TT. For if they are possibly a mile or two slower than two or three ginger four-strokes along the open straight, their road-holding and control qualities make them simply invincible over roads which bend and undulate. I am a timid old fogey nowadays, but I can make any rider on any machine stretch himself when I tackle him over average or freak roads on a Squirrel. I suppose the explanation of their failure to lick the four-strokes in the Isle of Man is ignitional (another nice, new word). After all, when you have an explosion at every revolution, and are revving for hours and hours at about 4,000rpm, the poor plug does not have much chance to dispose of the flames which lick it so continuously. But at least one plug merchant informs me that by 1924 he will have a plug which will remain cool and black in the jet of a welding blowpipe; so the Scotts will be out for blood, one presumes, in the 1923 race. In the meantime they remain the hottest and most comfortable lightweights on the road—for all this trio of Squirrels come out at under 200lb."

"A PICNIC BASKET TIP is to carry milk for the tea in the Thermos, in a bottle; if mixed in the first place, the cup of tea loses its refreshing qualities."

"A PILLION RIDER, BY DINT of striking many matches, managed to relight an extinguished rear lamp without stopping. But 'what was gained on the swings was lost on the roundabouts', for he had to dismount with alacrity when he found his nether garments smouldering!"

"THE PARIS CORRESPONDENT of *The Motor Cycle* writes that in France no person is allowed to ride a motor cycle, or indeed to handle any kind of mechanically propelled vehicle, until he has passed a practical and theoretical Government examination. At present no age limit exists. Only 10 years of age, Paul Goujon, I am told, passed a very severe examination which gave him the right to travel over all the highways of France on a motor cycle. Paul's machine is built to his requirements, for it is a motor assisted bicycle to which is attached a closed basket-work sidecar."



"The limit in sidecar outfits—a 10 year old French enthusiast and his nine year old passenger."

"A DETECTIVE RECENTLY RECEIVED INFORMATION that a motor cycle had been stolen (a 348cc Douglas as it happened). He went home, got out his 976cc New Imperial sidecar, and although the thieves had 15 minutes start, was successful in overhauling them 14½ miles from where the theft had taken place. The idea of justice overtaking them with such alarming rapidity astride a big twin of modern design had apparently not occurred to the culprits, for they abandoned the stolen Douglas and fled."

"AT THE BISHOPS LYDEARD (SOMERSET) Police Court Ralph Alexander Coleman, a boy aged 12, was summoned for having ridden a motor cycle without a licence. The boy had ridden the machine from Taunton, a distance of five miles, and when quite near his home met the local police sergeant. The bench admired the boy's pluck and discharged him on payment of the costs, 4s."

"ONE CANNOT BUT ADMIRE the ingenuity of certain 'speedman' familiar to the Brooklands community whose practice it is to disturb the ozone with some force protected as to the head in what was once a self-respecting bowler hat—now raised to the elevated ranks of a 'crash-helmet' by means of skilful camouflage."

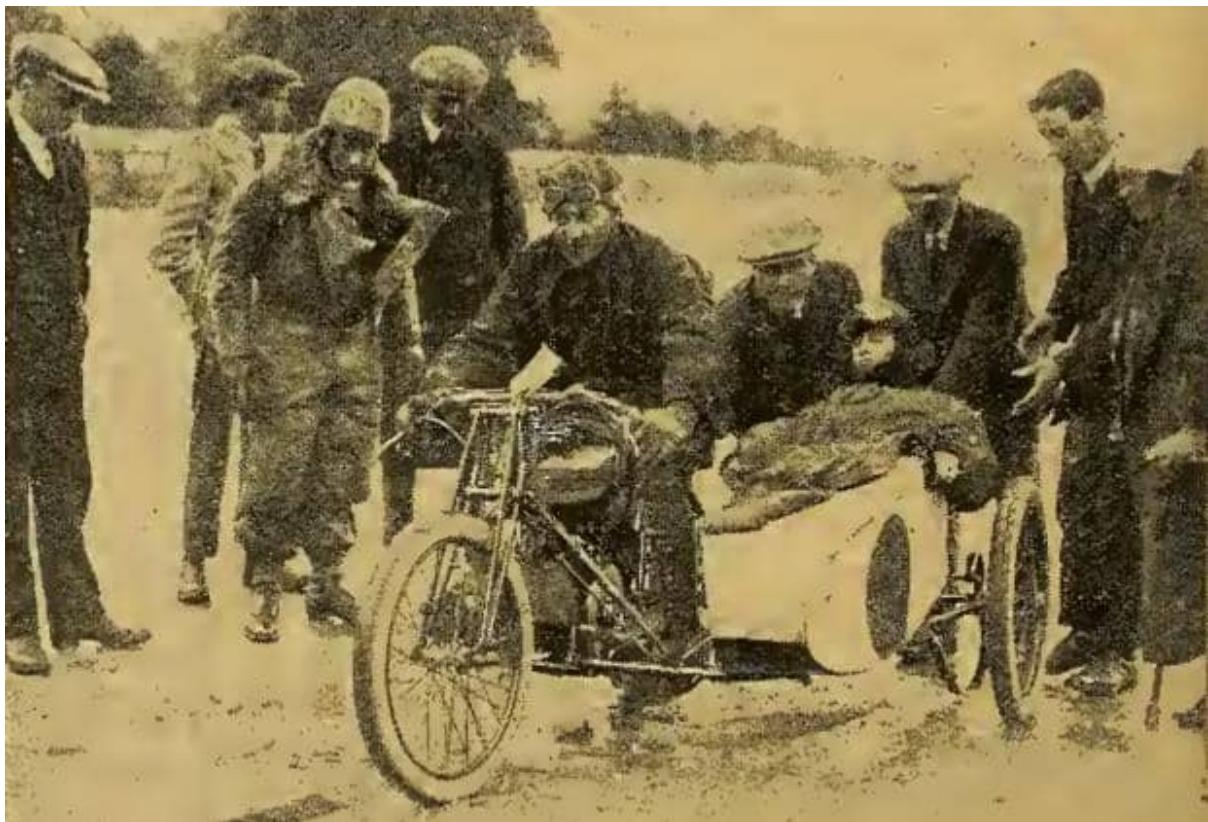
"THERE WAS AN ENORMOUS INCREASE in the number of sidecars on the roads in France between 1920 and 1921. In the former year there were only 5,559, while last year there were 13,358, an increase of 140%. This, too, is reckoned as rather a moderate estimate."

"IT IS INTERESTING TO RECOLLECT that a comparatively short while ago, even after the war, it was considered pure 'swank' to wear the now almost universally popular 'flying helmet' for motor cycling purposes—until people began to realise that such a form of headgear was both comfortable and efficient. Nowadays they are worn by motor cyclists of every description, from the 'big twin' solo man to the baby two-stroke 'speed merchant'."

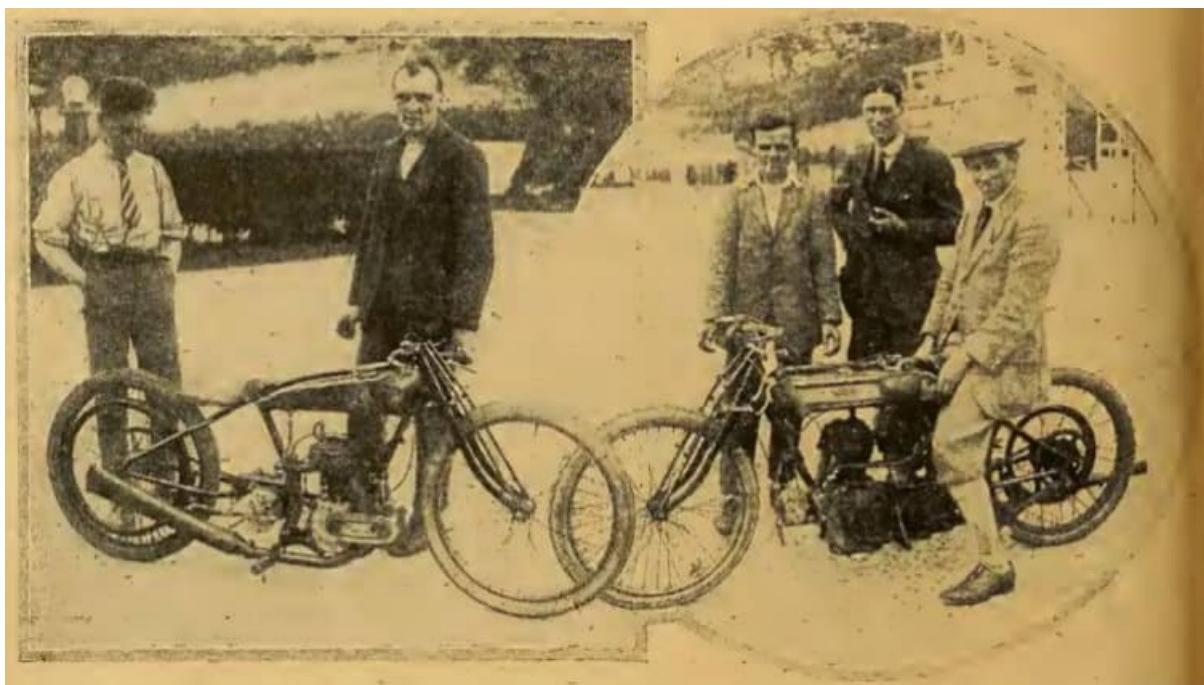
"ON THE LONDON ROAD NEAR CRAYFORD, Kent, a broken overhead tramway wire became entangled in a motor bicycle and sidecar. There was a shower of sparks and the driver was warned not to move as the wire was 'live'. His wife and child were in the sidecar, but the insulation afforded by the tyres saved them from shock, but they had to remain stationary until officials wearing rubber gloves removed the wire."

"THERE IS PROBABLY QUITE SOUND REASONING in the argument that impaired hearing of produce. when wearing goggles is caused by pressure of the strap upon the auditory nerves. This suggestion seems to be proved by the fact that one's hearing is often slightly affected even while wearing goggles pushed up on to the forehead."

"BROOKLANDS SILENCE CAMPAIGN: PEOPLE not in the know will be surprised to learn that there is a permanent injunction against noises on Brooklands track, which was the outcome of the first 24-hours record, made so long ago as 1907."



"JD Marvin taking over the Douglas sidecar from CG Pullin in their recent successful attempt on the double 12-hour record. Pullin, who had just finished two hours in the saddle, is on the left thoroughly soaked...Pullin complained that whenever his turn for duty arrived it rained the hardest. He wore a serviceable-looking Sidcot flying suit, but even this was not fully proof against the elements." The 346cc combo averaged 41.76mph for 24 hours. "After running continuously for nearly 500 miles the Douglas showed itself easily capable of a final speed burst, and lapped at 50.12mph...with the exception of one broken valve spring, and fitting one plug and two new tyres, the Douglas riders had practically no trouble."

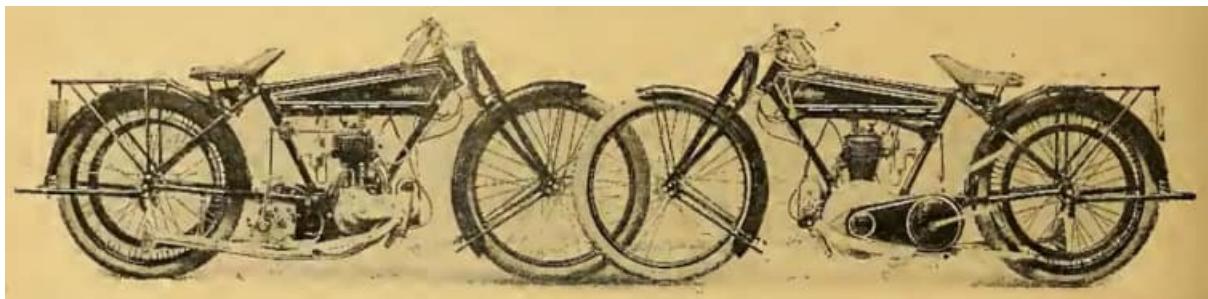


"WL Handley and WD Marchant who between them broke records up to 400 miles and seven hours on the new 250cc side-valve Blackburne-engined OK, averaging 56.67mph over 400 miles. (Right) RN Judd, Victor Horsman and DR O'Donovan, a trio of Norton exponents who, riding in turns, captured the double-12-hour record...accomplishing a distance of 1,447 miles 839 yards at an average speed of 60.31mph—the first time this has ever been accomplished on a motor cycle. The only troubles experienced were a broken tyre valve in the rear wheel, and numerous broken exhaust valve springs caused by the stripping of the thread of the adjustable tappet."



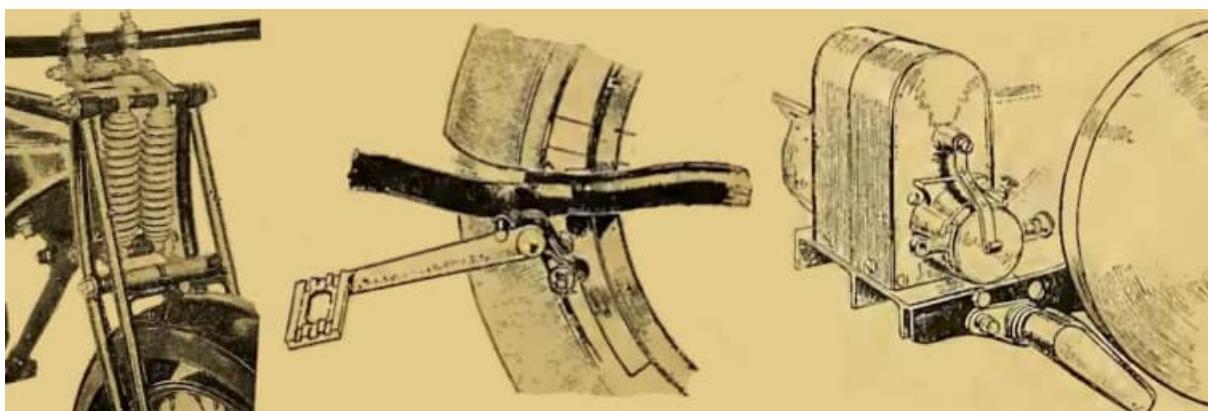
"Last week a 48-hour trial was undertaken by WB Pickering, riding a 770cc BSA sidecar. His plan was to ride eight hours daily on Brooklands for six days under ACU observation. Despite some valve trouble 40mph was maintained each day from Monday until Thursday. On Friday the forks broke and the crank case was damaged. This resulted in oil leaks and a seized engine on the Saturday."

"MAINLY FOLLOWING STANDARD LINES, but possessing several attractive features, the Gnome and Rhone is about to appear in the British market. Though of French construction, being built at the famous Gnome and Rhone works which turned out 30,000 aeroplane engines during the war, the 499cc Gnome and Rhone was designed by an Englishman, JJK Bartlett, who has distinguished himself in French competitions on both this machine and the ABC (which is also the company's production), he competed in the Tour de France of 2,300 miles on the machine under review without the loss of a single mark. It is worthy of mention that the method of securing the gudgeon pin by means of two spring rings fitted in grooves in the latter and engaging with corresponding grooves in the piston boss renders it safe and yet easy to detach...Mixture is supplied by a simple single-lever Gnome and Rhone



"Of trim and symmetrical appearance, the 499cc Gnome and Rhone as seen from both the valve and flywheel side. In future models a silencer will be fitted."

carburettor provided with a strangler to the main air intake, thus ensuring easy starting under all conditions...Transmission is by chain and belt, a Sturmey-Archer three-speed gear box being employed...Originality is shown in the design of the brakes. One of these, of the direct-acting variety, is controlled by the rider's left heel, and consists of a large shoe applied to the belt rim, while the other is actuated by the rider's toe, and is applied directly to the periphery of the flywheel, the pedal being on the offside footboard. Good spring forks are employed, and caps are provided to keep wet and grit from the hubs. In the first model seen over here the magneto is controlled by a lever on the tank, but in future models this will be handlebar-controlled. It is interesting to note that all control wires are concealed and pass through the handlebars, and that sidecar lugs are incorporated in the frame. The Gnome and Rhone is to be made on mass production lines, 10,000 machines being suggested for next year and 20,000 the year after; the first batch is practically ready for delivery."



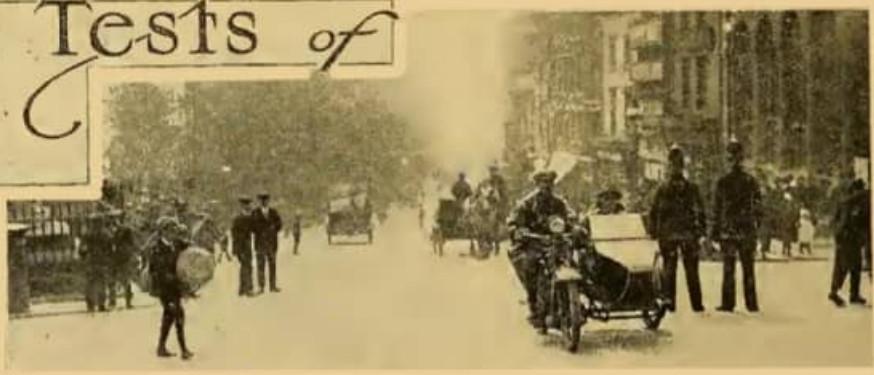
From left: "The spring forks of the Gnome and Rhone, the links of which are steel drop forgings. Simply designed rear wheel brake. Splitdorf magneto and flywheel brake."

"IN THE SAME DAY, at the same police court, two motor cyclists were summoned. In one case the alleged offence was that of being drunk in charge of a machine; in the other, that the machine was too noisy. The first man was fined 10s; the latter, 40s. The case simply supplies confirmation for what we have already said; the present campaign against noise has, in the Midlands anyhow, far over-stepped the bounds of common-sense."

"A WEEKLY PUBLICATION ASKS 'How many pillion girls have to be killed before the obviously requisite law is passed?' It is quite time that the lay Press stopped publishing nonsensical paragraphs such as this on matters about which it invariably displays supreme ignorance."

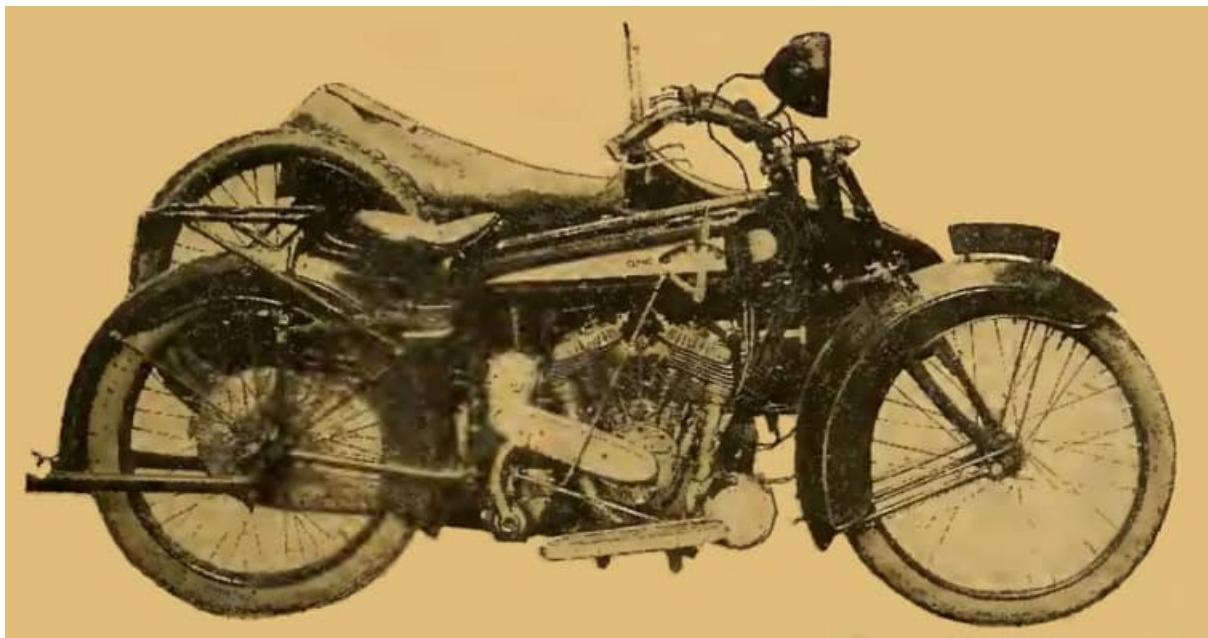
Road Tests of New Models

The 925 c.c.
fully sprung
Clyno Sidecar
Outfit.



"Midland riders will recognise the familiar hill up the Bull Ring, Birmingham. With a full load of three and luggage the Clyno can re-start with ease on the worst part of the gradient."

"EVER SINCE THE DAYS of the selective-clutch two-speed Clyno, its makers have had a high reputation as manufacturers of sidecar outfits, and it was with pleasure that a few weeks ago we were able to announce that the big twin Clyno was once again in production. The early post-war design was most promising in every respect, but its production was delayed for some time for works and financial reorganisation, and this delay has enabled even further improvements to be made in the final article. In spite of the fact that the machine which we tried had never been on the road previously, it ran without a falter throughout a total distance of some 200 miles, and proved itself capable of maintaining very high average speeds with heavy loads. The high averages put up were undoubtedly due not only to the power and smooth running of the engine, but also to the comfort provided by the excellent spring frame and spring sidecar wheel, which absorb severe bumps to such a degree that one can maintain high speeds over rough roads, pot-holed streets or tram tracks. After a preliminary run we left Coventry by the Holyhead road for Wellington, thence to the Wrekin to watch the competitors ascending that hill during the course of the ACU Six Days Trials. The trip was accomplished in remarkably short time in spite of the new engine, and in extreme comfort. Thence on to Shrewsbury and back again to Wellington for the night. The following day the return trip was made via Birmingham, and the average speed maintained was as high as could reasonably be expected of any sidecar machine. The maximum speed is about 50mph. Throughout this trip the load consisted of an 11-stone passenger, light luggage, spare can of petrol and a spare wheel. In addition the machine was equipped with full electric lighting and electric horn. So smooth and cool running is the engine that it may be left on three-quarters throttle for mile after mile without showing any signs of distress. It is also quiet as regards mechanical noises, though a slight improvement might be made by lengthening the tail pipe another six inches, for though the exhaust is not unduly noisy, thanks to the large cast aluminium expansion chamber, the sound of the explosions is clearly audible to the rider, which would not be the case were a slight extension fitted. Mechanical lubrication by a small pump driven from the timing gear relieves the rider of all responsibility, though since the engine was a new one and we were driving somewhat fast the auxiliary oil pump was employed on two or three occasions. An internal expanding rear brake works smoothly and powerfully. It is in fact sufficiently powerful to lock the rear wheel, though a steel-studded tyre such as was fitted to the machine in question is not well adapted to rapid deceleration on smooth tarred roads. With regard to the front



"The 925cc Clyno outfit showing the distinctive finish and very complete equipment. Rear springing, mechanical lubrication and detachable cylinder heads are noteworthy features."

brake, however, there is considerable room for improvement, a horse-shoe type being fitted at present which not only interferes with the quick detachability of the interchangeable wheels, but has the additional disadvantages of scoring the rims and being insufficiently powerful for use with a heavy sidecar. An external expanding brake could easily be arranged, avoiding both these defects, and we understand that the manufacturers already have this matter in hand. The front mudguard is no less than 8in wide, and is valanced throughout the complete arc, and these sensible proportions help to keep both machine and rider reasonably clean, and the rear guard which moves with the spring wheel is exceptionally free from rattles. A most excellent metal-to-metal multi-plate clutch is fitted on an extension of the gear shaft, and it is particularly sweet and smooth in action. It is operated by a pedal conveniently placed on the left footboard. The gear box is unusually silent on all ratios, and it appears to be impossible to make a noise when changing gear, though, owing to slight stiffness in the new quadrant, we did not always change as smartly as desirable. Rear suspension by two laminated springs seems to be ideal; no trace of side rock could be detected, and the springs were just sufficiently flexible to absorb the shocks without causing roll or bounce. The same may be said of the sidecar wheel springing, which removed all traces of those shocks usually transmitted to the cycle by the sidecar wheel, yet was stiff enough to prevent serious rolling on corners. As to the sidecar itself, the two passengers who tested it on different occasions agreed that the springing was the most comfortable they had ever experienced, and though the leg room is a little cramped for a tall man it is ample for a passenger of normal proportions. High ground clearance is a strong point for overseas buyers, and the frame with its duplicate saddle tube construction is sufficiently rigid for all requirements. With the exception of the front brake already mentioned, the only serious criticism we have to make has regard to the petrol consumption, which was somewhat high, working out at approximately 35mpg. It is perhaps hardly fair to raise this point, since the engine and carburettor were untuned and the machine was driven at more than average speed throughout the greater part of our test. Except for the exhaust noise it would have been difficult to tell that the engine was a V-twin, and from maximum speed the machine could be throttled down to a mere crawl and driven through thick traffic on top gear. In detail work, the Clyno excels; the cylinder heads are very easily detachable, chain adjustments are simple, and every

moving part of the machine can be greased by a special grease gun supplied in the kit. A two-way tap enables the gear box to be lubricated en route, and the system of feeding oil (by mechanical pump) to wells surrounding the cylinder bases appears to answer admirably. It is very seldom that we have felt so thoroughly enthusiastic over a heavy sidecar outfit as was the case after our trip on the 925cc Clyno, and we wish the company every success in its latest venture.



"A Cheshire beauty spot. This typical and charming bit of 'old England' is at Eccleston Ferry on the Dee, three miles from Chester. It is a landscape that many American visitors look upon as a perfect gem among English pastoral scenes."

"MOTOR RACING TRACKS HAVE recently been built in several places on the Continent. The first to be constructed after the war was outside Berlin; another has just been completed near Copenhagen; and yet a third was lately opened for the Italian Grand Prix in the Monza Park, near Milan."

"RECENTLY THE DAILY NEWSPAPERS have become alive to the fact that motor cycling is hot wholly a young man's pastime, and a controversy has started as to who is the oldest motor cyclist. Three years ago, in June, July, and August, 1919, a similar discussion took place in the columns of the Motor Cycle, when it was discovered that a Mr Elias Blackburn, aged 89, of Redcar, easily earned the honour."

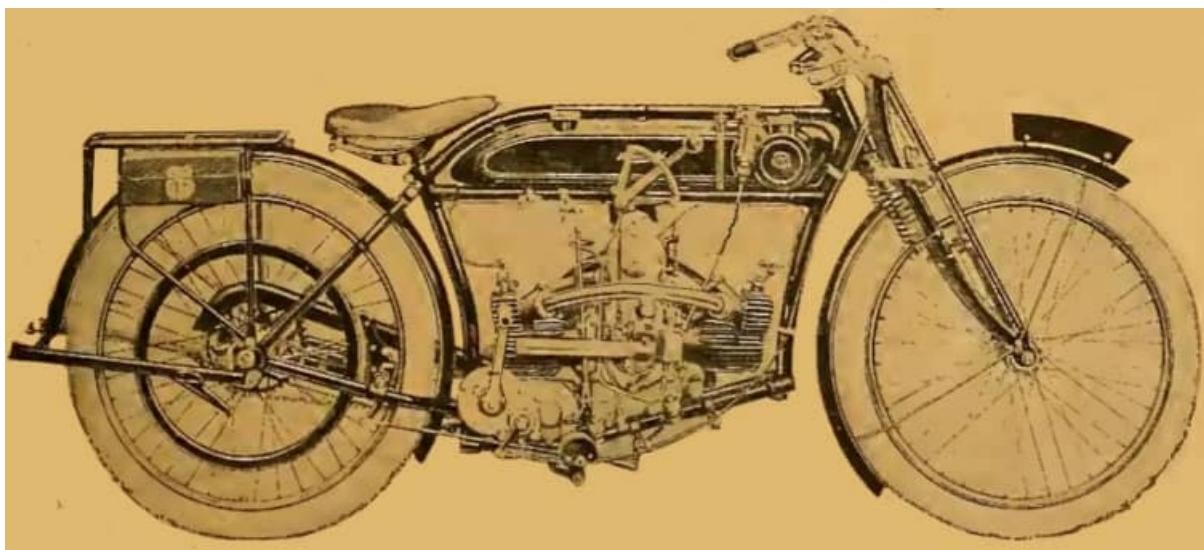


Road Tests of New Models

The 600 c.c. Flat-twin Sports Humber.

"WHEN TAKING OVER A TYPICAL sports solo machine one does not expect to find such a luxury as a kick-starter, nevertheless this invaluable fitting is part of the equipment of the 600cc sports Humber, and it should be added that the starting of this machine is remarkably easy. Again, the first impression received on the road is of extraordinary flexibility, another feature not usually associated with sports machines. One can crawl along on top gear at a speed but little higher than a fast walk and yet accelerate to a maximum of approximately a mile a minute with no other alteration than a movement of the throttle lever. The carburettor, it should be added, is a car type Claudel-Hobson single lever. It is not altogether easy to find a suitable testing ground for a powerful solo machine in the immediate neighbourhood of Coventry, so we bethought us of the standard course employed by The Motor Cycle staff when testing pre-war machines. This course, though straightforward, includes several good hills, such as Frizz Hill, Edge Hill, Tysoe, and Sunrising, and provides a sufficiently varied assortment of surfaces to form a good test. Accordingly we set forth on a showery day with the side roads just sufficiently treacherous to test the stability of the machine. Over main roads to Warwick, Barford, and Wellesbourne the Humber covered the ground smoothly and fast, giving a sense of security on corners due to a low centre of gravity and beautiful steering. The first rise to be encountered was Frizz Hill, which is sufficiently steep and long to test the top gear pulling powers of most touring machines. The Humber, however, slid up fast on a three-quarter throttle opening and continued down the corresponding descent past the beautiful grounds of Compton Verney. Down this hill we took the opportunity of testing brakes. The rear brake, operating in a dummy belt rim, is smooth and powerful, but the front brake, of the horse-shoe type, though capable of slowing the machine, will not bring it to a stop on any severe grade. This point, in fact, requires attention, and the present fitting—of a rapidly disappearing type—might reasonably be replaced by something more modern. At the foot of Edge Hill we took the precaution of adding an additional charge of oil to the oil sump, from which lubricant is circulated by mechanical pump. The surface of the hill was good and dry, and we experienced no trouble in making a comfortable ascent on top gear (this with a ratio of 4.5 to 1 is no mean performance), thence down Sunrising a further excellent brake test, sharp to the left at the bottom, and through the old-world village of Tysoe, thence up the least known hill of the Edge Hill range. Tysoe Hill is a good test, though its

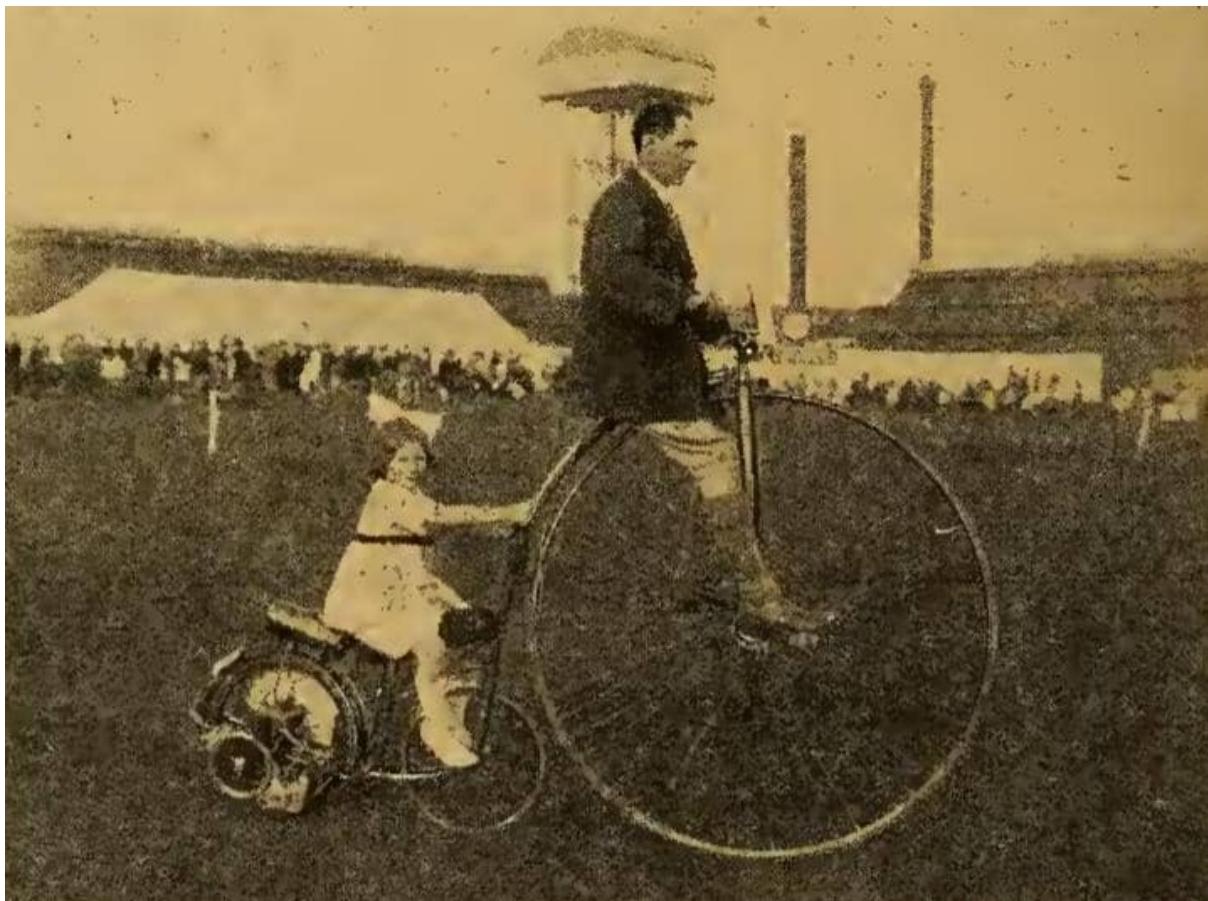
deceptive gradient does not appear to be steep to the eye. Again a top gear ascent was made in spite of the S-bend just before the steepest part. Here we stopped for a few moments to admire the view over the surrounding country, the sun came out, and the marvellously clear atmosphere permitted great distances to be seen, though it forecasted further rain. Returning over the same route, Sunrising was used as a second gear test, for, since we had already proved the top gear pulling powers of the engine, we dropped into middle on the right-handed hairpin in order to try the performance on the lower ratios. On a gear of 7.5 to 1 it was possible to accelerate even on the steepest part of the hill, and the engined



"A kick-starter, single-lever carburetter and mechanical lubricator are none too common on sports models, but these specifications are included in the Humber equipment."

toyed with the gradient. Middle gear is reasonably quiet, excepting at very high revolutions, when something of a whine proceeds from the gear box. As in most flat-twins, the vibration at high speeds was barely noticeable. Throughout the run the Humber was not spared, and on the many open and almost trafficless roads high speeds were attained. Before reaching home rain fell and provided an opportunity for testing the mudguards. We can only say that they are of the usual sporting type, and, though they are fitted fairly close to the tyre and consequently stop a certain amount of wet, they are not very practical from the point of view of cleanliness; where sports models are concerned this is usual, however. Outstanding features of the Humber are silence of engine operation, accessibility and smooth running. The engine is not vibrationless, but is so comparatively free from vibration that it is far ahead of the normal V-twin. The silencing arrangements might be improved, though, in spite of the plain exhaust pipes with fishtail ends, the exhaust note is reasonably quiet until the throttle is more than half-way open. Detachable valve seatings have long been a feature of the flat-twin Humber models, and these, of course, are retained so that the complete valve spring and pocket may be removed for inspection and 'grinding in'. Oil is pumped from a capacious sump to feed the various bearings, plain split big-ends being employed and lubrication scoops fitted thereto. The timing gear is quiet and the valve tappets reasonably silent; but without doubt the most striking feature is the wonderful top gear flexibility. So pronounced is this feature that we could not help thinking what a fine single-gear machine, free from the extra weight and complication of gear box, kick- starter, clutch, etc, could be produced using the flat-twin Humber engine as the power unit. The suggestion, of course, sounds old-fashioned, and there are but few who would take an interest in such a machine were it produced. Nevertheless the point is worth recording, since it emphasises the

wonderful flexibility of the machine. Altogether the Humber company has a right to pride itself on turning out a useful compromise between the touring and ultra sports types, which, with the backing of an excellent reputation for workmanship, should find a ready market."



"A queer combination. This amusing 'outfit' was entered in a recent comic cycle parade on the Humber Sports Ground at Coventry. Several of these old 'penny farthing'" or 'ordinary' bicycles were entered, but the idea of attaching an Auto-wheel caused the greatest amusement among the spectators"

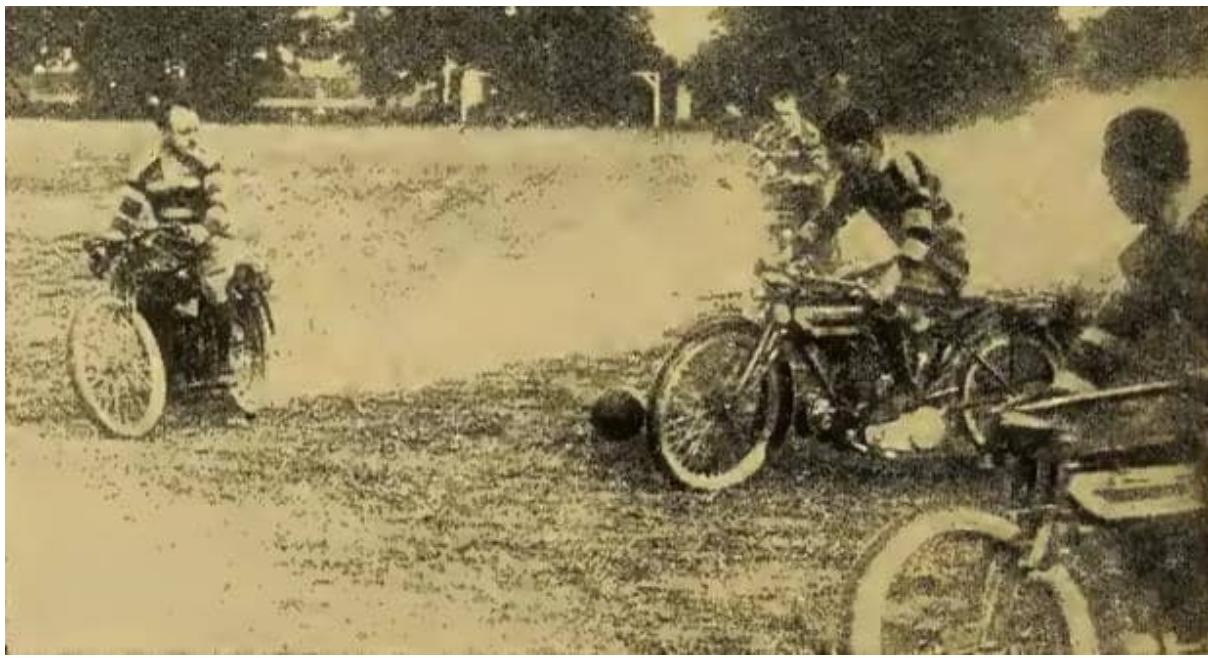
ON FRIDAY LAST THE FIRST motor cycle races took place on the new Italian track in the royal park of Monza, near Milan. The track has a circuit of 10km (6 $\frac{3}{4}$ miles). Two events were run. The first, for 1,000cc machines, was held in the morning over 40 laps (248 $\frac{1}{3}$ miles), and in the afternoon was another race over the same distance for 500cc machines. The 1,000cc race was won by the Italian rider Ruggeri, on a Harley-Davidson at an average speed of 64.8mph. The 500cc race was won by Gnesa, on a Garelli, at 63 $\frac{1}{2}$ mph. The Italian track is quite different, both in its nature and its environment, from anything existing elsewhere. The club responsible for the venture has been vey fortunate in getting possession of a richly-wooded former Royal park, quite close to Milan, and in it has built a speedway which unites track and road conditions. In the 1,000cc class 19 machines were sent away in a group at 8am The makes were Excelsior, Harley-Davidson, Indian, one Humber and the Italian Gallonis and SARs. All the riders were Italians. The race was a struggle from beginning to end among the Harley-Davidson men, who numbered 10 out of the 19 starters. Although the leader changed, it was always a Harley-Davidson which led the field, and the fastest lap was made by Winckler, one of the members of this team, at an average of 74mph. Result: 1, Ruggeri (Harley Davidson); 2, Contarini (Harley Davidson); 3, Faraglia (Harley Davidson); 4, Winckler (Harley Davidson); 5, Rava (Indian). In the

afternoon race a magnificent grouped start was made by the forty 500cc machines of British, French, Italian, and Belgian makes. A special class was not provided for the 350cc mounts, and among those starting with the handicap of a small piston displacement were the Garellis, which won at Strasbourg. Although British makes were well represented by Triumph, Douglas, New Hudson, Sunbeam, Norton and NUT, the only British riders were Edmond and Brandish, on Triumphs.



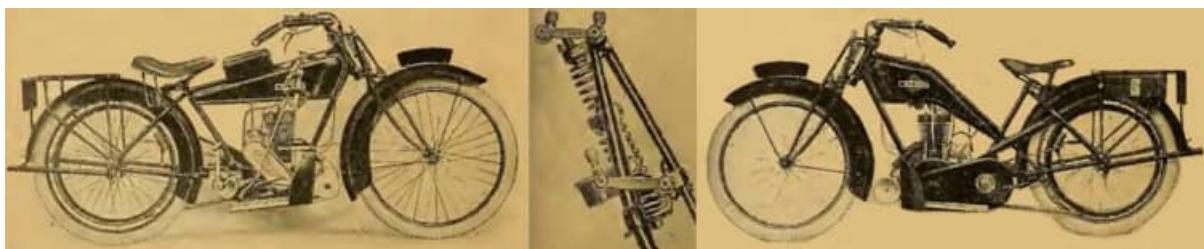
"Start of the 500cc class. Douglasses, a Triumph and a Norton are among the machines on the first line."

One of the French ABCs was ridden by [Gnome et Rhone designer] Bartlett, an Englishman residing in France...There was a particularly fine duel between (the French champion) Naas and Brandish. The Frenchman kept in the lead for nearly 50 miles, but the Englishman gradually crept up to him and got the lead after 30 laps. Just when excitement was running high Naas broke the frame of his machine. He fastened it up with straps and covered five more laps, losing ground to Brandish all the time. Declaring that it was really too dangerous, Naas came to the pits and announced his intention of retiring. Hardly had his ABC been lifted off the track than Brandish, the last of the Triumph team, had to drop out of the race with a broken tappet. These incidents caused wild excitement among the spectators, for they placed a 350cc two-stroke Garelli, ridden by Gnesa, in the lead with Fieschi's Douglas second. The rider of the English machine did his best, but each lap he lost about 20 yards to the two-stroke Garelli, the rider of which won the Italian Motor Cycle Grand Prix by covering 248 miles in at an average of 63.5mph. The final result was: 1, Gnesa (349cc Garelli); 2, Fieschi (494cc Douglas); 3, Morabito (494cc Douglas); 4, Maffeis (494cc Maffeis); 5, Fergnani (349cc Garelli). Out of the 40 starters only three other machines were running when the race ended."



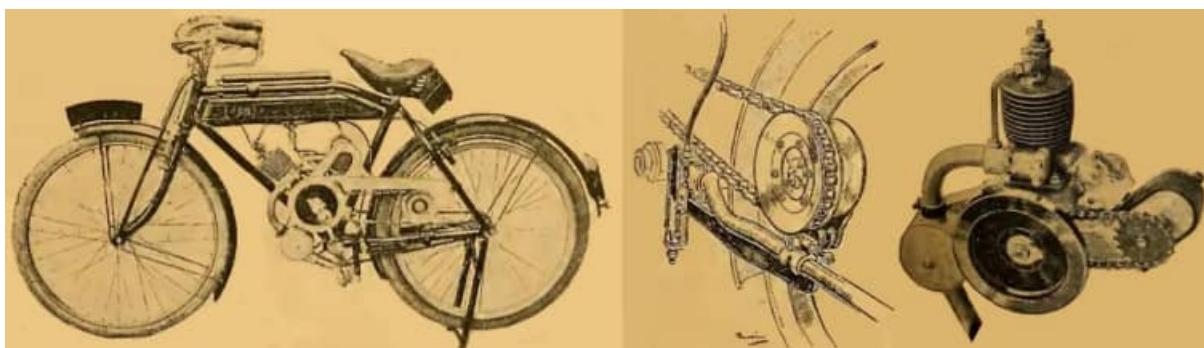
"Where skill and strength are needed. We do *not* understand that a game of motor cycle football is to be included as a final test in the next Six Days Trials. But there is no telling what the future holds in the way of original 'tests'. This capital speed picture, full of life and movement, depicts a scene at a recent Northampton fête."

"THE CEDOS TWO-STROKE was obviously too good to go under when the company went into liquidation. Production has now commenced again—in new hands, excepting the designer, Mr Ernest Smith—and improved 1923 models will be exhibited at the Paris Salon and the Olympia Show. The 247cc engine has been considerably altered, and now represents very advanced practice in two-stroke design. That it has a detachable head alone places it in a class by itself... Every reciprocating and rotating part of the engine is machined all over so exactly that it is unnecessary to balance each engine individually. In the same way no rough surfaces are left to collect carbon in the cylinder or the ports. A specially designed carburettor is used, which goes a long way to eliminating four-stroking. Since the aluminium expansion chamber is 11 times the piston displacement of the engine, noise has been reduced to a minimum. Lubrication is of the suction drip-feed type direct to the cylinder, special attention being paid to the internal distribution of the oil. Frame, tank, and cycle parts generally are of workmanlike design; everything on the machine except the magneto and gear box (a Sturmey or Moss three-speed) is made in the company's own works, which ensures homogeneity of design. The spring fork has been improved and a neat and comfortable type of semi-TT handlebar evolved, as an alternative to the touring type. Naturally, the distinctive Cedos under shield is fitted, although the shape has been modified. A lady's model is also marketed. In this case the top tube is dropped, necessitating an alteration in the shape of the tank, and 24in wheels are fitted instead of 26in. The over-all weight is only 2lb more than the standard machine, which turns the scale at the remarkably low figure of 1481b. The finish is now all black, thus ensuring complete weatherproofness. The makers are the Cedos Engineering Co, Ltd, Northampton.



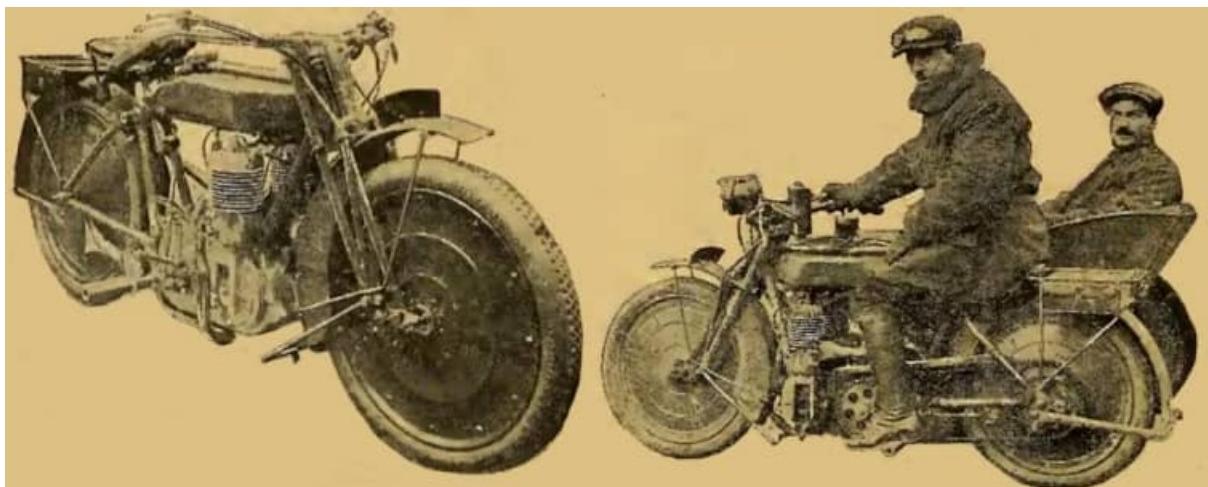
From left: "By reason of the detachable head the Cedos two-stroke rather resembles at a first glance, a four-stroke. Re-designed front forks which damp out shock and rebound. Workmanlike lines are followed on lady's model, which is basically identical with the standard type."

"AT FIRST GLANCE AT THE JD motor cycle (a new product of Bowden Wire, Ltd), one is inclined to say, 'Ah, another motorised bicycle.' But one very soon alters that opinion; and the more the design is studied the more it is admired. An attempt has been made to do something that has never been done before, ie, to evolve a self-propelled vehicle that will, by reason of its similarity to an ordinary bicycle and its simplicity, attract the pedal cyclist, but to design and build it with the same care and thoroughness as are bestowed on the most expensive machines of to-day. The resemblance to a motor-assisted pedal cycle is merely superficial. The frame, which has a sloping top tube, is amply strong enough for the roughest use in the hands of the novice; double-butted tubes are used where possible. After considerable experiment spring forks were discarded as unnecessary, a rigid girder type being fitted. Orthodox three-port design is followed in the 116cc (51x57mm) two-stroke engine, which, however, is notable for the excellence of its finish and the fine limits to which its component parts are made...A very large silencer is fitted, this, like the other aluminium portions of the machine, being a die casting...Friction transmission is employed. Carried on a bracket pivoted on the rear stays is a sprocket, driven by the engine, and a U-shaped disc of a special friction material, which makes contact with the inside of a U-section flange bolted to the rear wheel. To de-clutch, the driving disc is simply swung clear by a Bowden lever on the handle-bar acting against two fairly light coil springs...Extended road tests for three years have failed to find any weak spots, and the road performance without pedal assistance is remarkably good. The JD derives its name from the initials of Mr J Dring, of Bowden Wire, Ltd. Mr Dring, it may be remarked, was the moving spirit in founding the old Stanley Show in 1878, an exhibition held annually at the Royal Agricultural Hall, Islington, until the adoption of Olympia."



From left: "Riding position on the JD miniature is similar to that on a pedal cycle and thus inspires the confidence of the pedal cyclist. Friction transmission is used which by the Bowden mechanism shown provides a clutch and free engine. Contact pressure is gained chiefly by the pull of the driving chain tending to jamb the small friction disc against the flange on the wheel. Power unit complete, illustrating the, comparatively huge silencer."

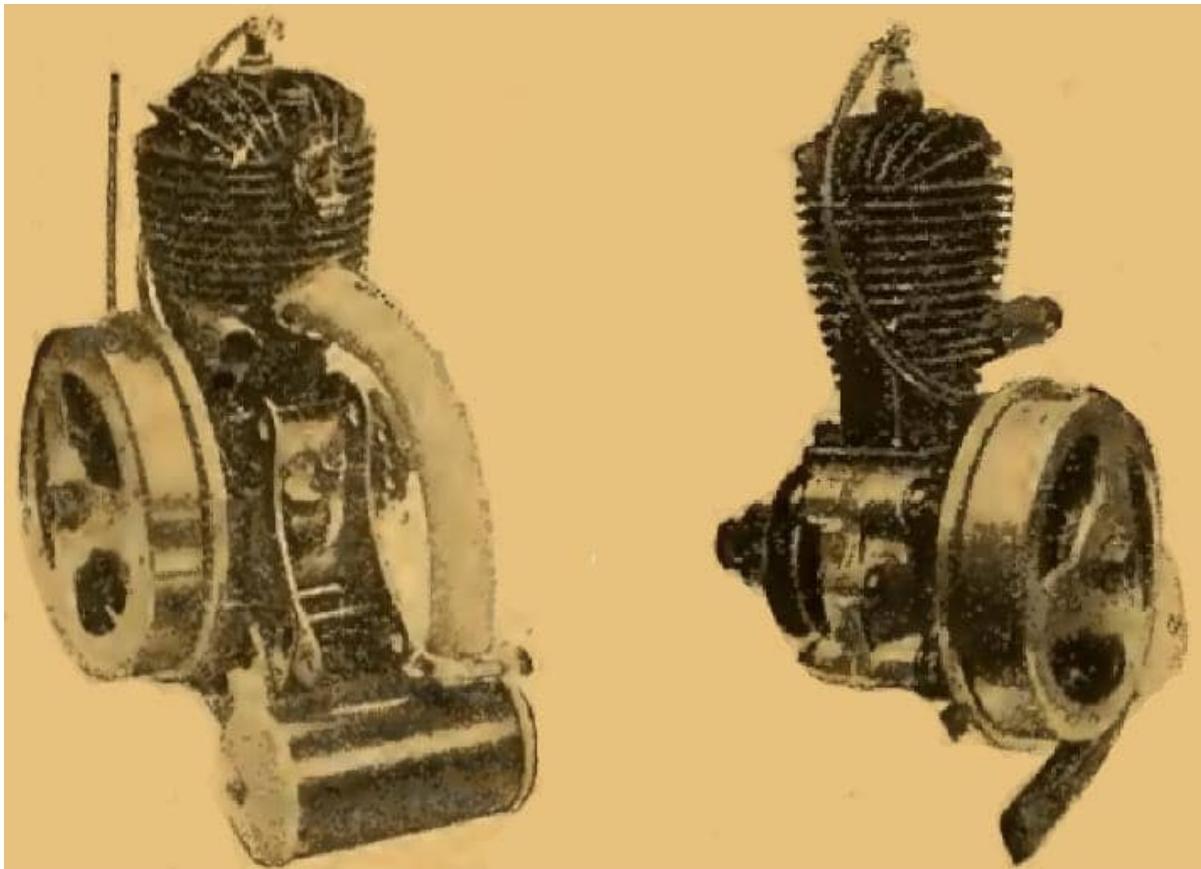
"BLERIOT FRERES, THE WELL-KNOWN manufacturers of aeroplanes, motor car head lamps, dynamos, etc, have for some time been testing an entirely new model twin-cylinder two-stroke machine designed primarily for sidecar work. Although the engine is but of 750cc capacity it is rated, in France at any rate, at the rather high figure of 8-10hp...The clutch, of the disc type in which 11 discs are used, is contained within the flywheel, which is located centrally between the two cylinders [which are] spaced apart somewhat more widely than is usual in the case of vertical twin-cylinder machines...The three-speed gear box forms a unit with the engine, and an unusual feature is the provision of a reverse gear in addition to the three forward speeds. The change speed is effected in a novel and ingenious manner, the lever having only two positions on the quadrant, but also a vertical movement. In its normal position it operates first speed and reverse, a catch being provided which must be released before the lever can be made to bring the reverse into operation. For second and third speeds the lever must be pressed vertically downwards about 3in...Although final belt drive is shown in one illustration it is understood this machine will also be made with chain transmission...a front stand is fitted, though this latter looks somewhat fragile judged by British standards."



"Engine and gear box form one unit—the primary drive being central and the cylinders spaced somewhat widely apart. (Right) An advance 1923 model Bleriot. It will be seen that it is quite a compact machine. Observe the very small reduction in ratio of the driving and driven sprockets."

"IN THE WORLD OF TWO-STROKE ENGINES no proprietary manufacturers are more celebrated than the Villiers Engineering Co. Its latest productions are always eagerly watched by two-stroke enthusiasts...Three types will be manufactured, the capacities being approximately 150, 250, and 350cc. These three models have many features in common, including, of course, the Villiers flywheel magneto, which can, in addition, be used as a lighting set, if required. It may well be found that the tiny 147cc power unit, with its self-contained flywheel magneto, may become a forerunner of the lightweight of the future, or what is more popularly termed 'the motor cycle for the million'. One is apt to consider such a tiny engine as a toy, but we can give a personal assurance that it is nothing of the kind: it is a pleasingly constructed miniature which produces wonderful power for its size. We rode a motor cycle, of normal size and construction, fitted with a two-speed gear box, and the new 147cc Villiers engine. The power and speed of this outfit were quite remarkable...The little engine is capable of propelling a rider of normal size and weight at quite 25mph, and of ascending normal hills on the same gear ratio, while its tiny proportions and excellent balance render it to all intents and purposes vibrationless. It will be no surprise to us to find that in the near future a large number of miniature motor cycles are

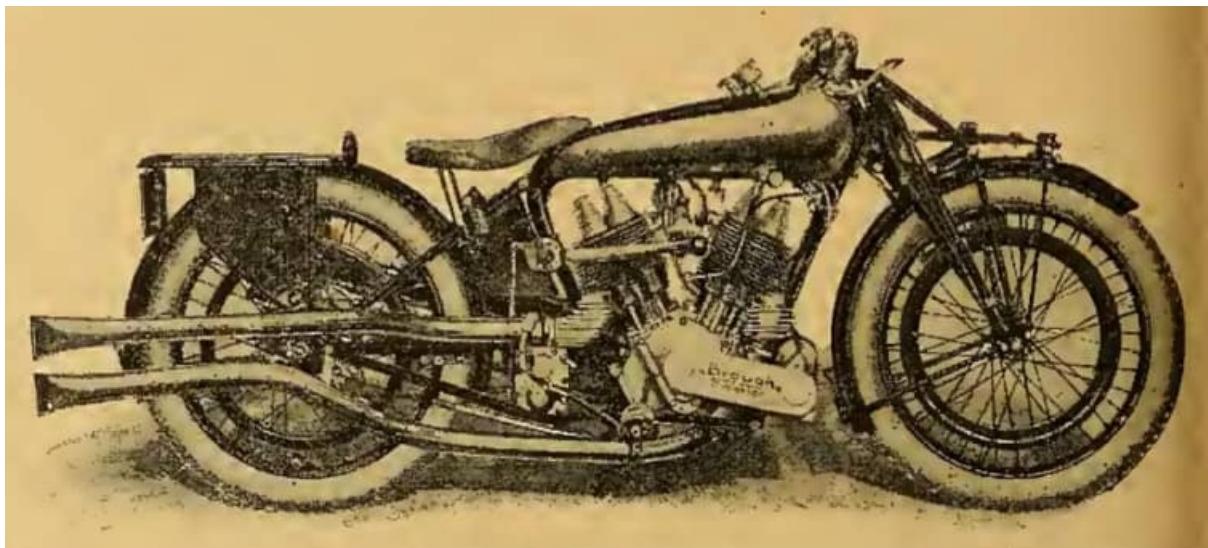
fitted with this engine and a suitable two-speed gear, since such a combination would be ideal for the average person who requires to travel short distances regularly, while it is particularly suitable for ladies' use...As regards the largest of the three models rated by the manufacturers as 3½hp, we took the opportunity of a short road test of this machine with a light but fully equipped sidecar attached. It is sufficient to say that with a two-speed gear it appeared to be capable of taking its rider and passenger anywhere that a reasonable motor cyclist would expect to go, and to be entirely free from any symptoms of drying up even under prolonged hard driving...we are informed that with a sidecar it is capable of over 40mph, and we should judge that this statement is within the fact."



"The new 343cc Villiers engine has a notably large silencer. (Right) The miniature 147cc unit, an idea of the size of which may be gained from the (standard) sparking plug."

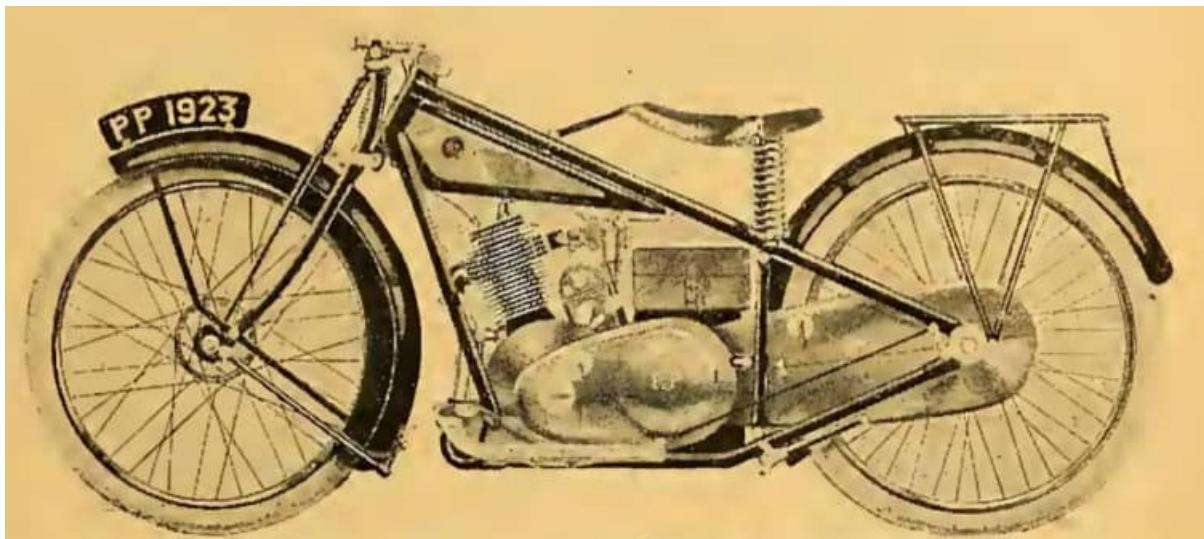
"THE GENERAL PUBLIC DO NOT realise how important a centre from the motor cyclist's point of view is Nottingham, yet there are quite a number of manufacturers who influence the state of the industry to no small degree. Mr George Brough is busy with his new SS80 model, the prototype of which was seen in the recent ACU Six Days Trials. Very few modifications have been found to be necessary, and the machine is already available in 1923 state. It will be remembered that by employing a curved rear frame lug the saddle position has been brought 2in further forward and lowered by the same amount, so that in effect the latest Brough Superior carries a big twin engine in a frame but little larger than that of the normal machine with 350cc engine. In spite of the fact that the SS80 is in effect a fast sports mount, and carries a guarantee of 80mph, it is a thoroughly practical fast touring machine, and all essential fittings are present in highly specialised forms. For instance, the tool bag behind the saddle tube is sufficient to carry all necessary tools and spares, while the very large pannier bags are of ample size to carry necessities for a night's stay. An ingenious detail is noticeable on the front end of the carrier,

where a small loop is formed which may be used for lifting the machine on to the stand, and also serves to prevent packages attached to the carrier from working forward into the rider's back. The latest JAP engine has proved particularly satisfactory, and the cast aluminium exhaust elbows give a very distinctive appearance to the whole machine...On the occasion of our visit we were able to inspect a very handsome sidecar taxi which is being supplied to Luton. The outfit is propelled by a 976cc JAP engine, with Sturmey-Archer gear and quick detachable wheels, the cab body being excellently finished and perhaps the most roomy and comfortable which we have ever seen."

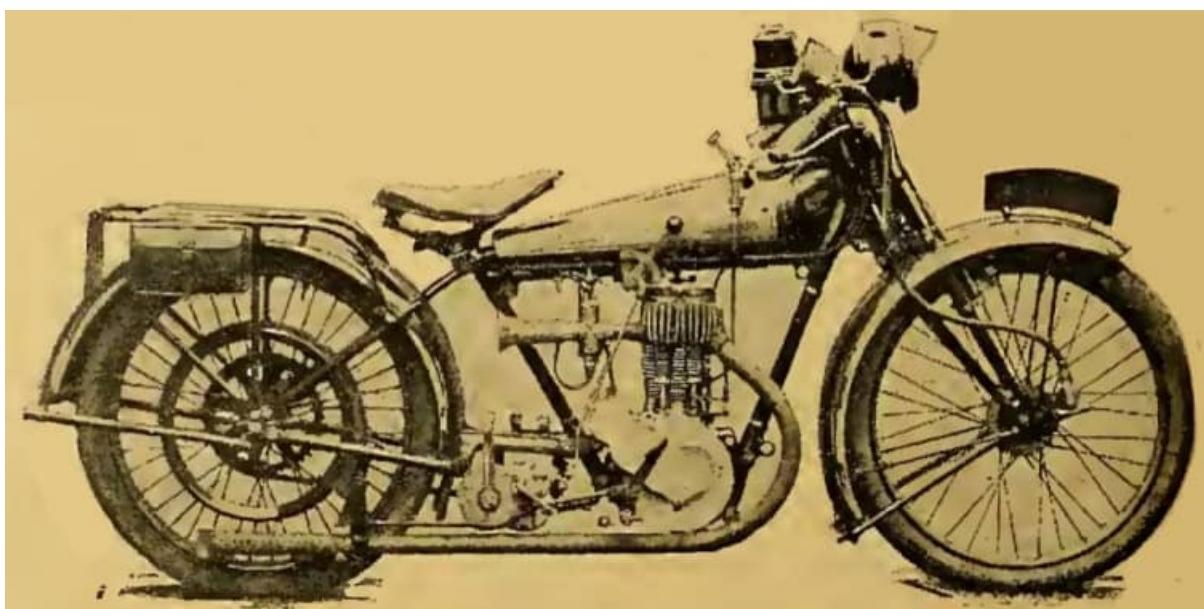


"Imposing lines are followed in the SS80 Brough Superior, which, minus its silencers, looks most businesslike."

"IF THE NOISE WHICH UNDOUBTEDLY is produced by a number of existing motor cycles could be reduced, and a really silent machine manufactured and sold to the public at a reasonable price, there is no doubt whatever that there would be a considerable addition to the ranks of motor cyclists. With this object in view Messrs Packman and Poppe have produced their new machine, which is to be known as 'The Silent Three'. A 350cc Barr and Stroud engine is employed as the power unit, and as is well known, the absence of poppet valves renders it particularly free from mechanical noise, while its power and reliability have already been proved. In addition, special precautions have been taken to render the exhaust as quiet as possible, and we may state from experience with the preliminary experimental machine, that the designers have already met with considerable success...the exhaust is led to a large aluminium expansion box, thence to a second sheet-metal chamber which has an internal division and carefully designed inlets and exits. To the engine is attached, through special plates, a three-speed Sturmey-Archer gear box with clutch, kick starter and shock absorber, the whole forming a unit which is suitably mounted in the duplex main frame."



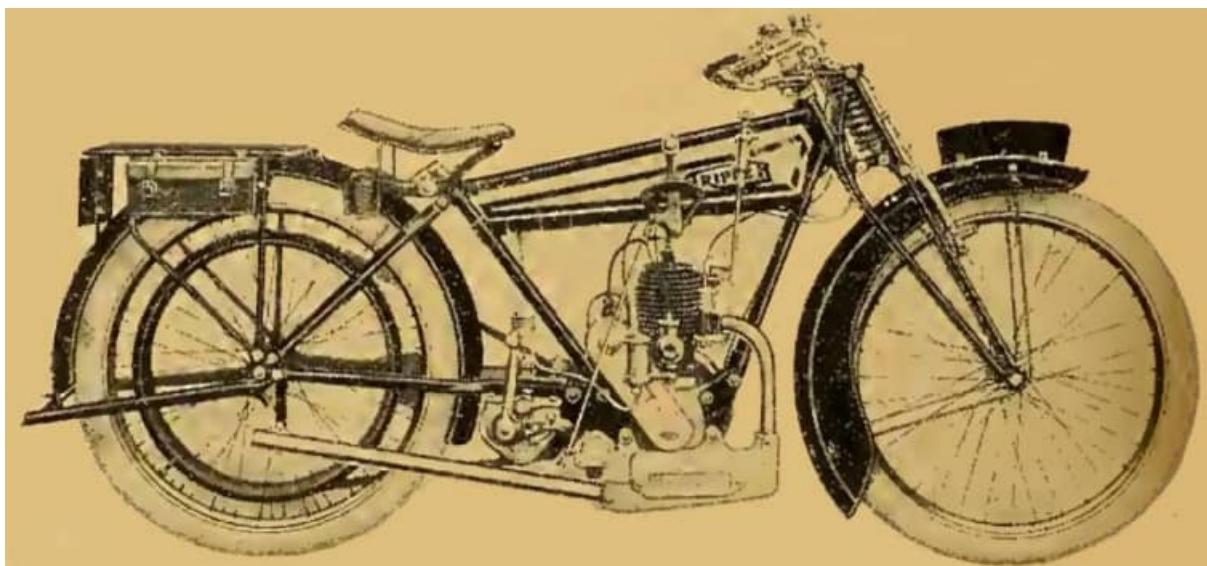
"Though unconventional in many ways The 'Silent Three' is extremely attractive. A complete cover for the engine will be fitted."



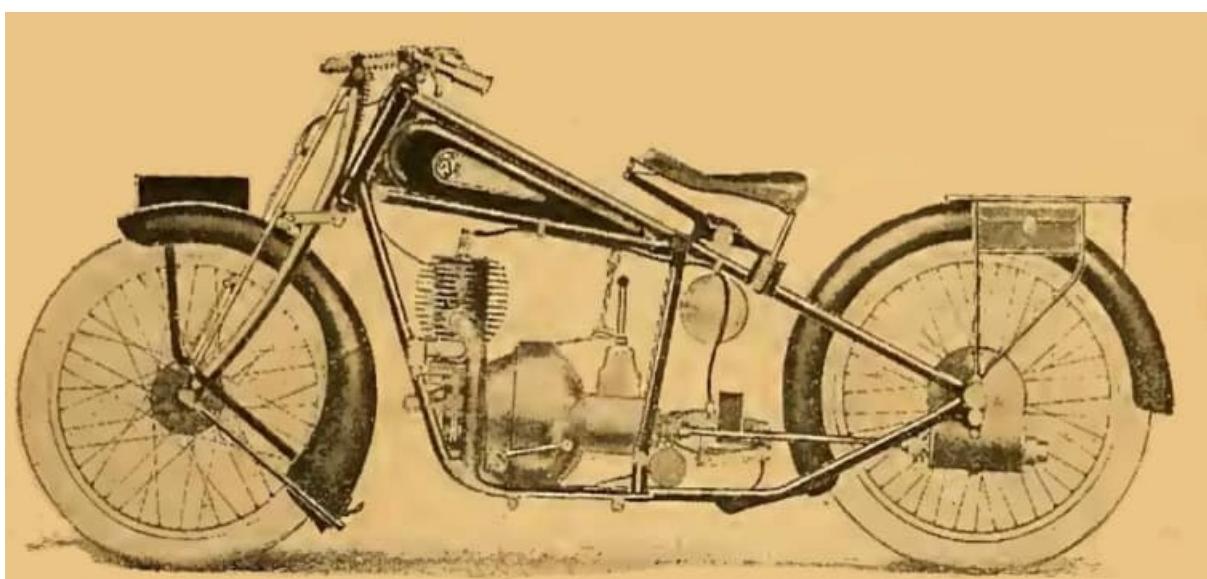
"A departure from accepted Quadrant practice, the new 490cc model will appeal to solo riders. Side-by-side valves are carried in the detachable cylinder head, instead of the side exhaust and rear inlet so long associated with this make...Heavy flywheels of large diameter contribute to the flexibility of the engine. The rest of the machine follows standard Quadrant lines, but is lighter in appearance and on more sporting lines. Either a two- or three-speed gear may be obtained."

"THOSE WHO REQUIRE A THOROUGHLY well turned out medium-weight machine at a strictly moderate price will be interested in the Triple-H productions, which are manufactured by Hobbis Bros & Horrell, of West Heath, Northfield, Birmingham. The specification of this machine includes a Morris two-stroke engine of 57x70mm (247cc) and a Moss two-speed gear with clutch and kick-starter transmission is by chain and belt and every detail is practically designed. The magneto is carried well behind the cylinder, where it is clear of mud and water; sensible mudguard sizes are employed; Maplestone front forks are fitted, and the rear brake is a particularly ingenious piece of work; it is constructed of strip steel, a large friction shoe working

on the inside of the belt rim, and is operated by a direct heel pedal, eliminating the necessity for a long rod."



"Semi-sporting model, but fitted with a sensibly large silencer."



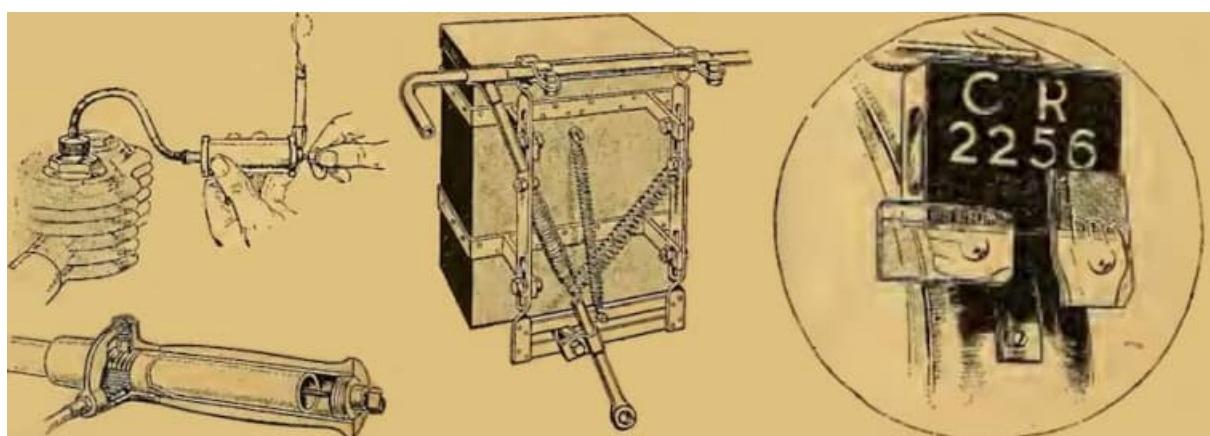
"Many motor cyclists are constantly grumbling that the selection of shaft-driven machines is extremely limited. These and many others will be interested in the new GSD. The machine has many unusual features, notably that it employs a four-speed gear box, duplex frame, shaft drive, and is capable of being fitted with engines varying from 350 to 1,000cchp, with very slight modifications...Internal expanding brakes are fitted front and rear; the front wheel being mounted in Brampton forks, while whatever size of engine is employed 26x3in tyres will be fitted."

"OWING TO THE LARGE NUMBER of prosecutions for obstruction, the Teignmouth magistrates have asked the Urban Council to put notices on the sea-front acquainting motorists of parking places in the neighbourhood."

"ROSSI, THE MOTOSACOCHE RIDER who made such a splendid performance in the Monte Bré hill climb, broke the 500cc flying km record in the Belgian speed trials at 145.160kmh. (90.7mph), also making the fastest time of the day."

"A WELL-KNOWN BELGIAN YACHTSMAN, has had built a 100ft motor yacht which embodies a garage for his motor cycle and sidecar."

"MR GEORGE BERNARD SHAW IS A life member of the ACU, which he first joined in 1912 as the owner of a Lea-Francis motor cycle."



"Air leak detection simplified: By means of cigarette smoke pumped into the cylinder by the Gordon patented device, ail leaks, suspected or otherwise, may easily be located. It is particularly useful in detecting the cause of uneven firing on twin cylinder engines. (RJ Gordon, 5, Lansdowne Square, Weymouth.) Operating two controls simultaneously and independently, Alexander's twist grip uses a rack and pinion for the throttle and a straight outward pull for the air. The spring behind the plunger in the thumb stop is just sufficiently strong to locate the air control. Straight pulls on both wires and positive adjustment are other advantages of the device. (EC Alexander, The Elms, Upton.) After the style of the devices occasionally seen on large cars, a hand-signalling device has been designed by for motor cycles. Each pair of lever-operated hands—there is one in front—is transparent and therefore is illuminated at night by the existing lamps. (SW Edwards, 19, Sydney Street, Shirley, Southampton.) Suspended on coil springs from an auxiliary frame work attached to the carrier proper where the tool bags usually are fitted, the Playfoot spring luggage case solves the problem of carrying fragile items awheel. If two cases are used it is easy to connect them across and form a third platform, say, for a pillion seat. (R. Playfoot, 31a, Portswood Road, Southampton.)"

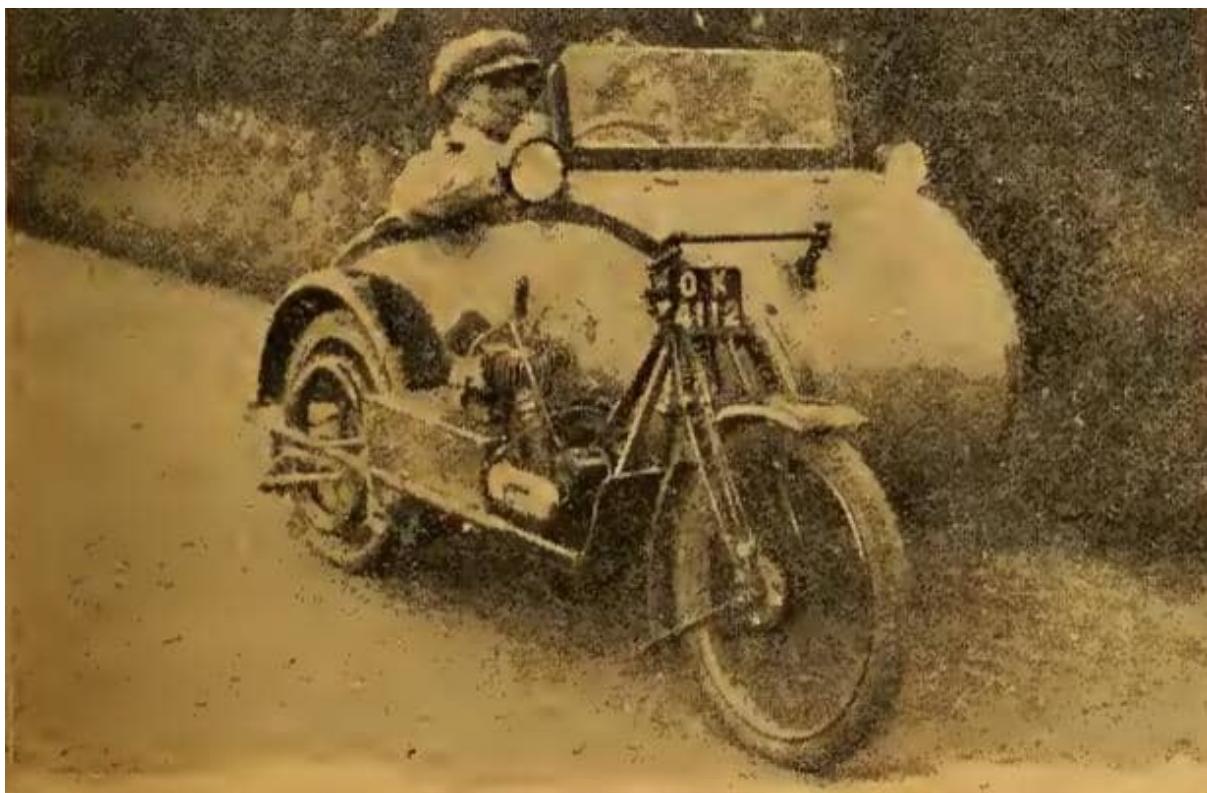


"Following car practice, the firm of S Smith & Sons (Cricklewood Works, London, NW) has introduced an instrument board for motor cycle handle-bars. It is priced at £2 10s. In

appearance like a cheap tie clip with a tiny mirror hinged thereto, this patented de vice is a miniature driving mirror for attachment to the peak of the riders cap. It acts quite well provided the cap does not jolt about too much. (J Smith, 40,Upper Arcade, Bristol.) Dazzling head lamps lose tHeir terror to those who wear the latest edition of the CGP eye-screen (for attachment to helmet or peak of cap), which has an additional screen of a specially tinted material. 4s 6d and 5s. (PG Cambray, Engineer, Long Preston, SG, Yorkshire.)"

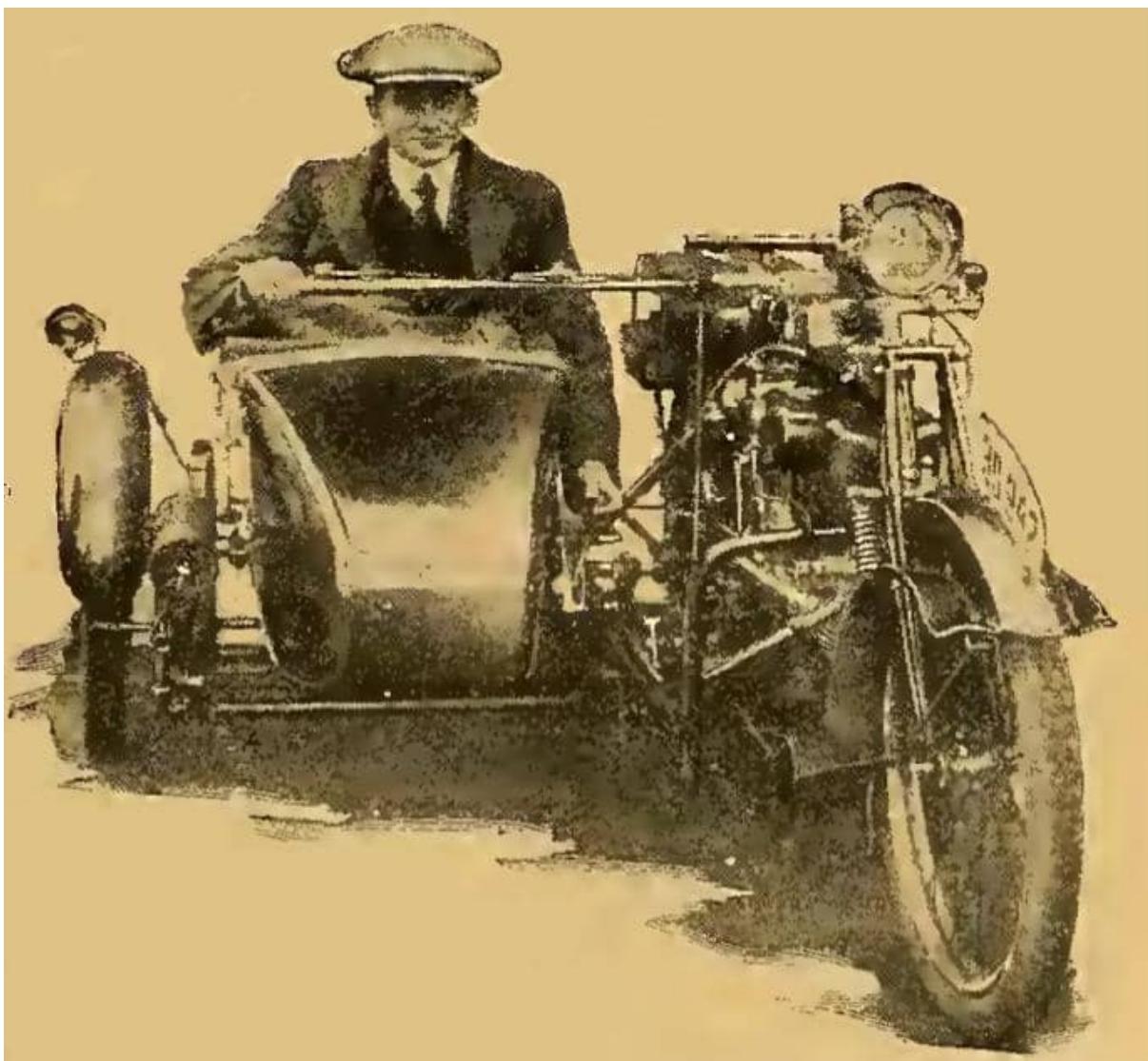
"SIR, 'SENEX', IN A RECENT ARTICLE in *The Motor Cycle*, bewails the fact that it is impossible for the passenger in a sidecar to talk to the driver, and he probably voices the opinion of many. An ideal silencing system, however, may not come for some time, and till then a miniature radio set will, I think, solve the problem. A dynamo, similar to those now used for lighting purposes, would supply the current; the commonly-worn helmet would hold and hide the head-band. The machine would not need a range of more than five or six miles, and so need not be unwieldy. Even when the ideal silencing system comes, and passenger and driver can converse freely, the radio set will have a wide sphere of usefulness. For instance, on a recent tour with a friend, on several occasions it happened that the one who had been riding ahead returned two miles or so to find that the other had been delayed by quite a minor adjustment. Eventually we got separated at a fork after dark; in circumstances such as these some means of communication would have been invaluable. The rider in a hurry, too, when unwillingly compelled to pass a break-down on the road, would infinitely prefer the definitely spoken regrets, as possible by radio, to the un- intelligible shout he is compelled to use at present. Till the motor cycle becomes a practically silent machine there will be great scope for radio as a means of communication between passenger and driver, or two or more riders in company, which is on most machines impossible at present.

AJ 2½, Darlington."



"Seen on the road in the Midlands recently, this unconventional-looking vehicle is less

unattractive in contour than the average two-seated sidecar. It has been built to accommodate driver and passenger in equal comfort, and is driven by a single-cylinder Blackburne engine."



"Driving in comfort. A Humber outfit which has, by transferring the controls to the sidecar, been converted to a 'one-man' three-wheeler. Tiller steering replaces the handle-bars."

JACK SANGSTER, PRODUCTION MANAGER at Rover, went to work for his father at Ariel—we shall hear more of Mr Sangster in due course.

"WHY SHOULD MOTOR CYCLES HAVE two wheels?" asks an Italian inventor; and, presumably without waiting for a reply, he designs the weird 'unicycle' illustrated here. As far as can be gathered, the rider and engine unit are suspended in an inner circle, as it were, making contact with the outer rim by rollers. One of these rollers is driven by the engine, the transmission being of the friction pattern. How steering is effected is not clear, but obviously the steering wheel is mere camouflage. Mudguarding will also present a difficult problem; and one does not care to visualise the effect of a jamb between the driving and driven transmission members when the vehicle is speeding hard down-hill! The idea, however, is by no means new. A motor unicycle, hailing from America, was described in *The Motor Cycle* of April 4th, 1918. It consisted primarily of an enormous wheel, nine or ten feet in diameter, propelled by an air-screw..." [You can read all about it by skipping back to 1918 in this very timeline.]



"The latest Italian one-wheel motor cycle."

"BITTER COMPLAINTS CONTINUE TO REACH US regarding the unfairness of the police campaign against noise in the Midlands, particularly Birmingham. Apparently, the unfortunate defendants in silencing prosecutions are not permitted to call any evidence in their favour, however authoritative it may be."

"NO ESCAPE! 'FOR ALLOWING EXHAUST gases to escape from a motor cycle' in Freeman Street, Hull, two motor cyclists were fined."

HUGO RUPPE (WHO HAD DESIGNED DKW's first engine in 1919, established Bekamo (Berliner Kleinmotoren Aktiengesellschaft—'Berlin small-power-engine Corporation'). The DKW engine was a humble 1hp clip-on for bicycles; the advanced Bekamo 129cc two-stroke featured a pumping piston in the crankcase for forced induction. Ruppe eschewed expensive steel in favour of a wooden (ash) frame before bowing to convention with a conventional frame the following year. The Bekamo established itself as a formidable racer but the engine was expensive to make. Despite supplying it to other marques including Windhoff, MFZ, Eichler, TX

and Böhme, Bekamo survived for only three years (though as we'll see next year a Czech offshoot would outlive its German parent).



"WHILE APPRECIATING OUR READERS' interest in the matter, we really are tired of receiving newspaper cuttings referring to the Stratford motor cyclist who, it is alleged, has not had a bath since Armistice Day. On behalf of the whole motor cycle movement, we take this opportunity of repudiating all responsibility."

"PLACE THE DEVICE ON THE PLUG of the cylinder that is knocking and keep it on for half a minute. This will 'stop' the noise, because you take away the firing compression. The device 'cures' knocking cylinders and dry pistons in the same way, and detects weak compression"—an unedited extract from a leaflet about a new spark tester. In the same way, a burst rear tyre may be cured by lifting the whole machine into the ditch and proceeding on foot."

THE FIRST BOL D'OR 24-hour race for bikes and cars up to 1,100cc was held near Paris on 3.2 miles of dirt roads between Vaujours, Clichy-sous-Bois and Livry-Gargan. In later years two, latterly three, contestants would share the riding but in that first outing bikes only stopped to take on petrol. Tony Zind of Switzerland claimed victory after riding his Motosacoche non-stop to cover nearly 774 miles at an average of 32mph. He ate and drank while riding; history makes no mention of toilet stops.

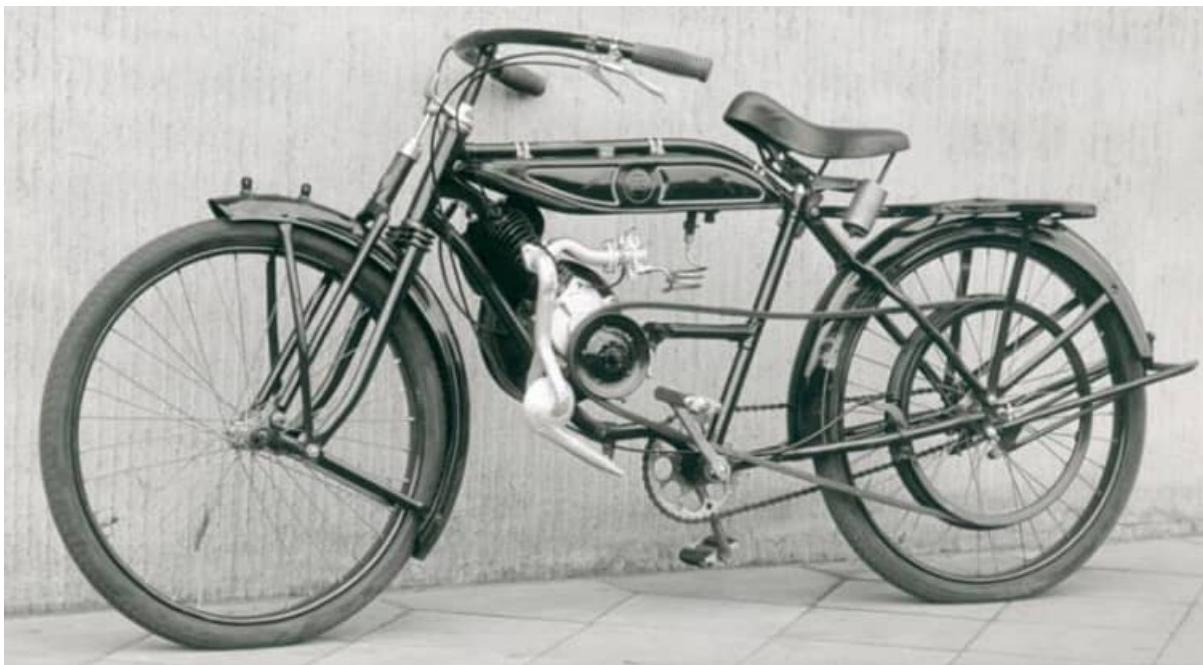


Tony Zind won the first Bol d'Or, riding non-stop for 24 hours at an average of 32mph



Nowadays the Bol d'Or is a motor cycle race but initially cyclecars competed with the bikes. M Andre's Harley outfit is being passed by the bulk of a Godfrey & Nash cyclecar.

PUCH CAME UP WITH a double-piston 122cc two-stroke single; a design sometimes, regrettably dubbed a 'twingle'.



DKW launched a 143cc two-stroke motorcycle. It was marketed as the Reichsfahrtmodell, following victory in the Reichsfahrt race.

THE ITALIANS STOPPED TAXING motorised bicycles, prompting a flood of tiddlers including Alato, Ancora, Dardo, Gaia and Alfa (no, not that Alfa). For power they looked to Villiers, Train (French), DKW (German) and Moser (Swiss) as well as home-brewed engines from Piva, Fulgor, Rubinelli.

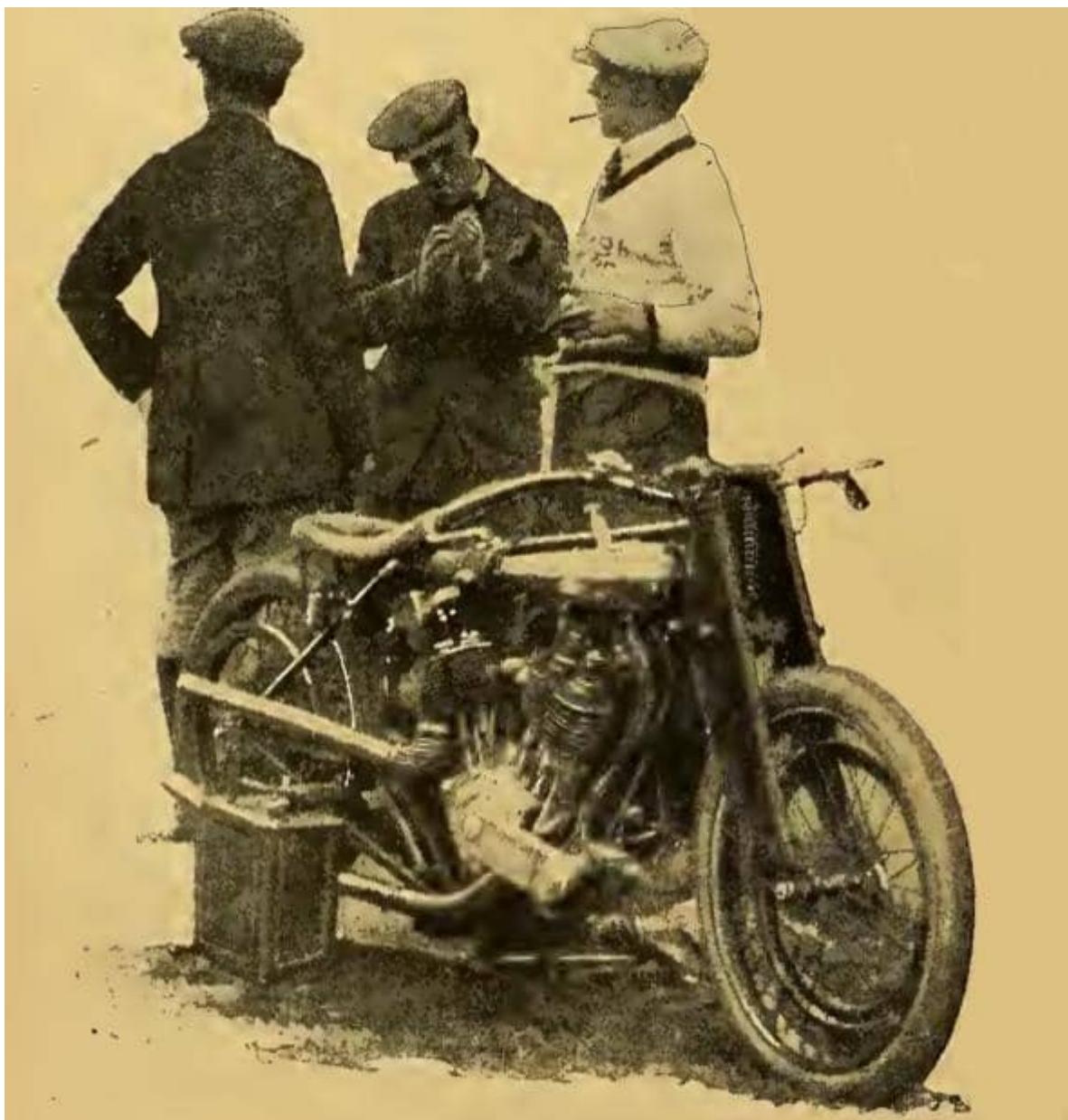
“FOURTEEN records were broken or established over the flying kilometre, in the Bois de Boulogne, Paris, on the morning of September 26th. The fastest run of the day was made by CG Pullin (733cc Douglas), whose average time for the kilometre covered in two directions, in accordance with the international rules, was 22.88sec. (98.039mph). By this performance he beat the 750cc record held by Judd (Norton), which stood at 24.87sec. In the 350cc class, Pullin on his 349cc machine broke another record by covering the kilometre in 24.4sec, or 91.72mph. This beats Le Vack’s (New Imperial) time of 26.97sec. In the equivalent sidecar class he put up 31.59sec, or 70.804mph, again beating the old record held by Le Vack. Finally, in the 1,000cc sidecar class he attained an average of 83.76mph, his average time for the two runs being 26.72sec. The Bois de Boulogne records were held in the famous Avenue des Acacias, the use of which had been granted by the Paris Municipal Council. The event should have been held several days earlier, but owing to a misunderstanding the road had been tarred too late and had not dried sufficiently to make the runs safe.”



"Congratulations—and worthy of them. CG Pullin and his ohv Douglas posing for the inevitable photographer after his sweeping victory in Paris."



Elsewhere in Paris,
factory rider Lenzin with his diminutive La Cyclette at the Parc des Princes.



"The return of the British big twin. Geo Brough (in white jersey), who made fastest time of the day at the Doncaster Speed Trials on his 976cc Brough Superior [setting a new course record at 82.57mph]."

"EVERY TOWN OF 2,500 PEOPLE or more ought to have at least one motor cycle dealer. How many of them have one? Not 10% of all the towns of this size in the country.'—An extract from an American trade paper that vividly illustrates how far behind Great Britain is the popularity of the motor cycle in the USA."

"THE INDIAN ORGANISATION IN AMERICA is largely advertising that New York's motor cycle police made a net profit of \$481,662 in nine months, after deducting all operating expenses, including drivers' salaries. Obviously, to enjoy motor cycling in full in the States one must be a policeman."

"ALONG WITH A LETTER TO THE EDITOR received last week were two large rusty nails which, a correspondent alleges, were found embedded business-end up in the tarred road through the village of Blythe Bridge. Before he had restarted after removing them, four more were stuck in

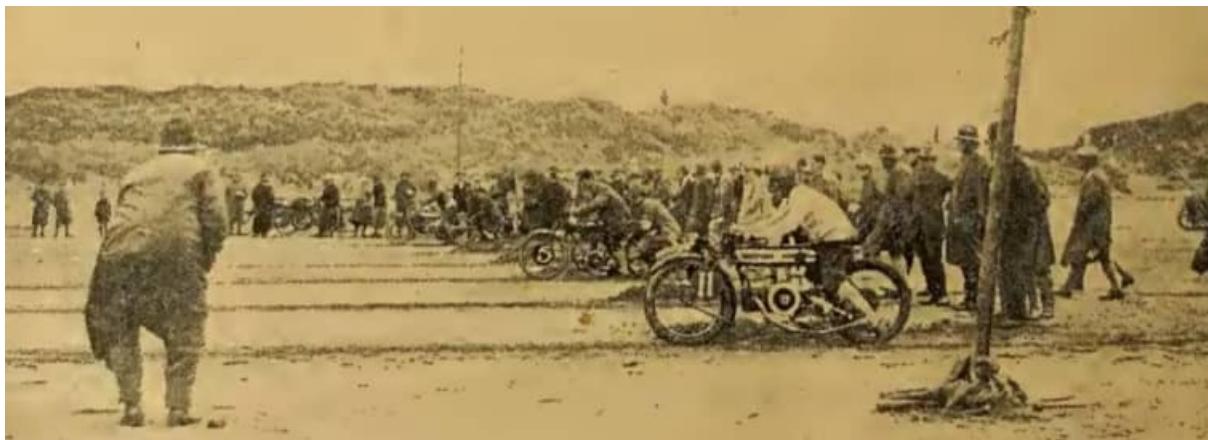
the same place; he hied to the local police office, only to find the whole police force was away for his annual holiday."

THE MODERN GIRL AND THE MOTOR CYCLE.

A Defence of the Motor Cycling Sporting Girl.

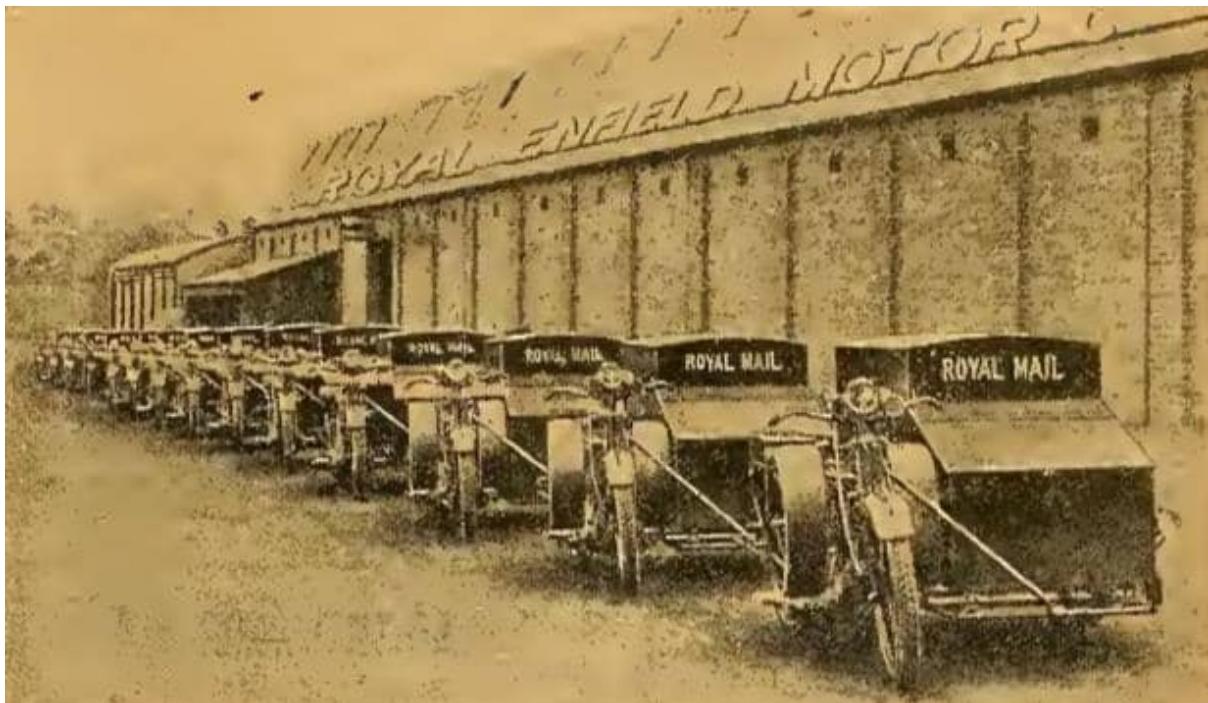
By MAB. LOCKWOOD-TATHAM.

"THE OTHER DAY I SAW A PRETTY GIRL with bobbed hair and the daintiest pair of breeched limbs standing beside her baby two-stroke in animated conversation with a group of admiring males, also with motor cycles of various descriptions. At the moment she was the subject of conversation between several people near me, and I overheard the finishing remark, made in tones of scornful finality, 'Oh, she's one of those girls who would ride a motorbike.' This from a member of her own sex and obviously accepted by the man to whom she spoke. I looked more closely at the girl, and saw a pair of merry blue eyes, tanned complexion, and capable, sensitive hands, and in spite of her workmanlike attire, femininity was written all over her. There are thousands of people who would thoughtlessly or otherwise make a similar observation and think no more about it. It seems that the fact of a girl being the rider of a motor cycle immediately labels her as being 'mannish'—admittedly an unpleasant characteristic—uninterested in frocks and frills, careless of home life, and devoid of any desire for woman friends. She is in the eyes of her adverse critics a sort of unsexed cumberer of the roads, whose speed appears excessive because of her female origin, and who possesses a desire for notoriety which overcomes any 'natural' fear for her personal safety. I have even heard the old saying that 'the female of the species is more deadly than the male' applied with great sincerity. It occurs to me that the justice of this impression should be severely questioned. It is generally admitted that 'the hand that rocks the cradle rules the world'. Then why should not 'the hand that rocks the cradle wield a spanner'? It takes an intelligent mind and clever fingers to minister to the wants of a motor cycle, and surely these are admirable feminine traits. It takes a strong and healthy young body to emulate Mrs Janson or even tour about for pleasure over miles of sunny, picturesque country; it takes a cool head and steady nerves to negotiate traffic and deal with the emergencies of the highway. All of these are the qualities we want in our daughters, who are eventually to be wives and mothers. It has never been considered masculine for a girl to ride a horse, yet in many ways it is much more dangerous and requires greater skill than driving a motor cycle—because over the former it is impossible to be certain of complete control. It has nerves and a mind of its own, and however well trained there is always the odd chance of panic or temper. When riding the latter only one mind and set of nerves is in evidence, which halves the risk in a tight corner. Nobody thinks of it being unseemly for a woman to struggle with a refractory kitchen range or tinker with a broken mangle—yet how unnatural she is supposed to be if she knows the difference between a magneto and a carburettor or does her own tyre changing. Probably the mangle is much harder work in the end. The modern girl has a great deal of freedom and spare time which she can use at her own discretion. Walking is not exciting enough for her as an outdoor exercise, and it is not always possible to play tennis or golf in these days of overcrowded clubs and high fees, particularly in the suburbs of large towns. True, there is the ordinary bicycle, but it entails much energy and at the best a very restricted field. The net result of all this is very often packed cinemas and hotel lounges decorated with physically perfect young women smoking cigarettes and drinking the ubiquitous cocktail. Compare these tired-eyed and pale-faced damsels with what they might be under the influence of sun and fresh air and an interesting occupation, to say nothing of the benefit of having something to experiment on besides face creams and the opposite sex."



"Race meetings on the sands become more popular week by week, and if, as was done at the Weston-super-Mare event illustrated, the classes are run as races in heats, they should continue to attract much interest."

"IT HAS HAS BEEN DECIDED, since the IOM authorities look favourably on the suggestion to close the Manx roads for three days next year instead of two, to run a sidecar TT, but the proposal to hold an amateur race has already been turned down by the general committee of the ACU. New objections have sprung up against an event for private owners. Last spring it was said that the time was too short to organise such a race, but that the idea had been sympathetically considered. Now it is considered that although the satisfactory definition of an amateur is not an insuperable difficulty, the enforcement of such a definition is beyond the powers of the ruling body. Reasons change, but the strange opposition continues. Ordinary members of the ACU cannot understand the position at all. They think, despite the fact that a trade-supported sidecar race will undoubtedly be a better financial proposition for the Union, that a most propitious opportunity has been lost of deciding once and for all whether an amateur race would be a success. More will probably be heard of this policy of condemnation without trial of an event which might easily become one of the premier sporting fixtures of the year and a source of keen interest to thousands of motor cyclists."



"Sidecars for postal collection: After an exhaustive test, the General Post Office has placed a large order for Royal Enfield delivery vans."

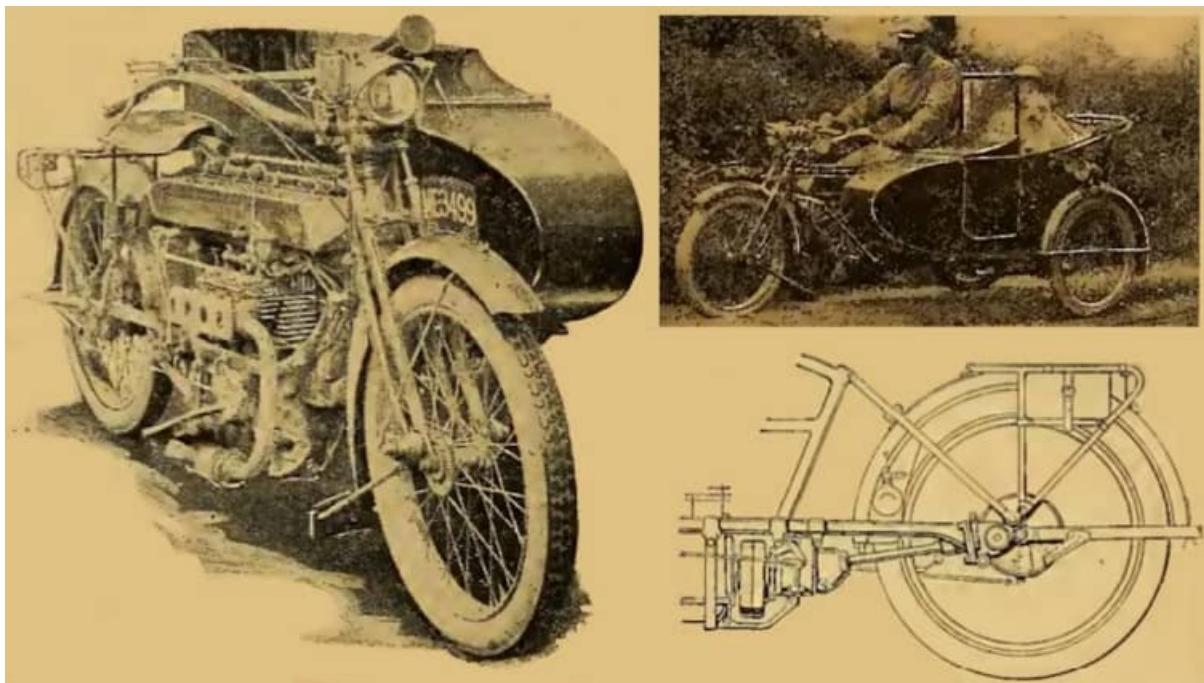
"*'KUKLOS' OF THE DAILY NEWS* has taken up with avidity our discussion of the loveliest views in Great Britain," Ixion reported." As he publicly describes me as 'gifted', I can't be rude to him, especially as the Editor says my only gifts are laziness and impertinence. But he makes it clear that, in his opinion, motor cyclists don't look at scenery, being far too much absorbed in their machines. He even quotes a Highgate novice who is returning to the push-bike, because his motor cycle compels him to concentrate overmuch on actual locomotion. It takes all sorts to make a world. In any Six Days Trials you will note men dismount at one of the more superb coigns of vantage in some gorgeous landscape, and, according to their temperament, (1) Damn the road surface; (2) Enquire where the next pub is; (3) Chaff the other competitors; (4) Abuse the officials; (5) Reminisce about their hard luck or line riding; (6) Silently soak themselves in the scenery. But I must snap a lance with 'Kuklos' when he objects to my pen name as the most violently unsuitable I could have chosen. To quote his own words: 'Ixion was a gentleman (thanks, gentle 'Kuklos'!) who for his sins was chained to a wheel and condemned to roll with it for ever.' Exactly! Just how I feel when I set out on my umpteenth London- Exeter. All things considered, however, the idea that motor cyclists do not see the scenery is one to be discountenanced. At everyday speeds one is far less concentrated on the road than the average cyclist, whose view in hilly districts is frequently limited to the top of his front tyre."

JAMES NORTON APPLIED FOR a patent (which would finally be granted in 1924) for desmodromic valves, but still relied on springs.



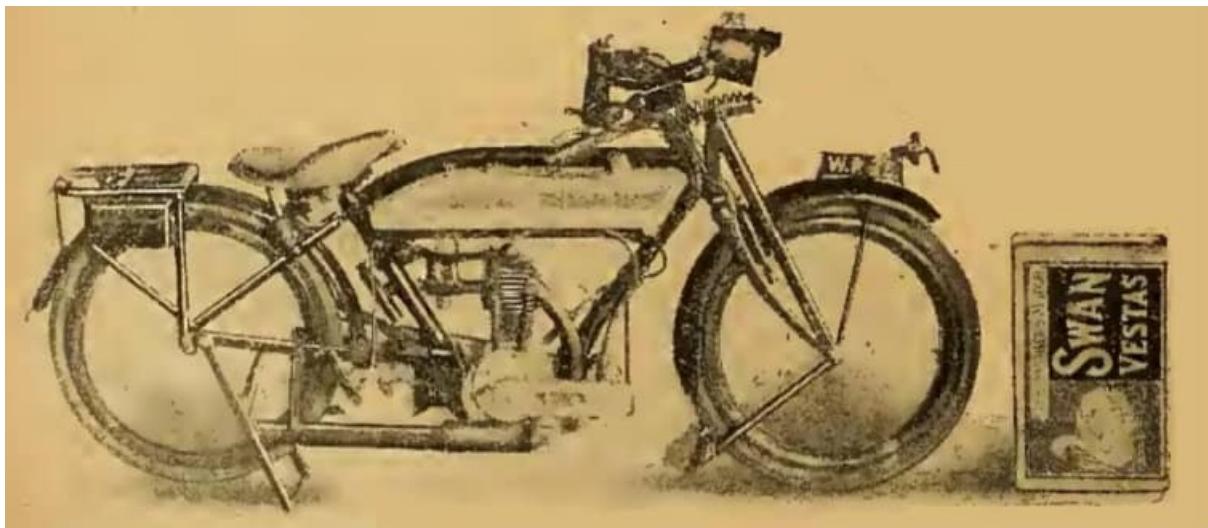
The Four-cylinder F.N. Sidecar Outfit.

"JUST AS GREAT BRITAIN HAD THE HONOUR of turning out the first six-cylinder motor car, so to Belgium must be given the credit of rendering the first four-cylinder motor cycle a marketable proposition. The FN motor cycle made its appearance in 1905 and has been manufactured steadily ever since, the first four-cylinder machine designed (in England, by General Holden) being only sold in limited quantities. A trial of the FN was particularly interesting to the writer, for he has followed its development from the time when it had automatic inlet valves and no gear, through the period when it had a two-speed gear, when, in 1914, it was completely modernised, with mechanically-operated side-by-side valves, a three-speed gear box and a plate clutch, to the present model, which has overhead inlet valves. It has been improved out of all recognition; and, although the 1922-23 FN is not in the sports model category, it is capable of commendably high average speeds. Our first acquaintance with the machine was on the occasion of the finish of the Six Days Trials, when necessity compelled us to make two ascents of the Brooklands test hill, which naturally were accomplished on first speed but required a very slight throttle opening. Since that date numerous journeys have been made, mostly over average roads, and the behaviour of the outfit on the 1 in 4 section of the test hill proved but an appetiser of its power and capabilities generally for going anywhere. Take, for example, the hill between Welwyn and Woolmer Green, which is approached by a curve that is never safe to take too fast. Laden with a heavy passenger, the machine ascended comfortably on top gear. Speed on the level, as already indicated, is all that can be desired, and it seems that the vehicle will hold its own with any outfit of a similar cylinder capacity. No difficulty was experienced as regards starting; the 'takeup' of the plate clutch was exceedingly smooth; and the steering left nothing to be desired. Throughout, the machine is thoroughly well designed, so that not only is



"View of the complete outfit which illustrates the position of the silencer commented on in this article. (Top right) Neat sidecar design characterises the quiet running FN outfit. (bottom right) Layout of the shaft drive."

it efficient but also it possesses thoroughly up to-date features, such as a really well-carried out mechanical oiling system, a neat inspection plate to the gear box, and a very nicely thought-out cover to the universal joint. However, one or two easily remediable details call for criticism. It is hard to understand why, after having an excellent single-lever carburetter of their own manufacture in 1911, the makers should elect to use one of the two-lever variety in 1922; it certainly detracts from the flexibility of the engine. It is also strange that the outlet of the silencer should be underneath the off-side footboard so that the exhaust fumes and exhaust noise are unduly noticeable. Probably due to the machine placed at our disposal having had a hard season's use and not a few honours to its credit in various important trials, the bevel was rather more noisy than might have been, and it would also appear that the balance of the engine at high speeds is capable of slight improvement. The mudguards, too, appeared to be rather small for the large section tyres fitted. Were attention paid to the small items mentioned, the FN sidecar outfit would be very nearly ideal. Flexibility and smooth running are the true attributes of the four-cylinder, while the weatherproof, no-trouble transmission in itself is worth a great deal. Made at a gigantic factory, renowned for good workmanship and excellent material, the FN has a reputation for longevity second to none.



"Were it not for the box of matches photographed alongside, the picture of this clever little one-seventh scale model would pass for one of the full-size Triumph which it represents. The model is the work of Mr WG Pepperell, of Salisbury."

"SIR,—IT WAS THE PERFORMANCE of a similar machine in the London to Edinburgh Trial that encouraged me to undertake a recent most successful journey from Edinburgh to Worthing and back on a 225cc Enfield two-stroke. Hence trials are of some value to the public after all.

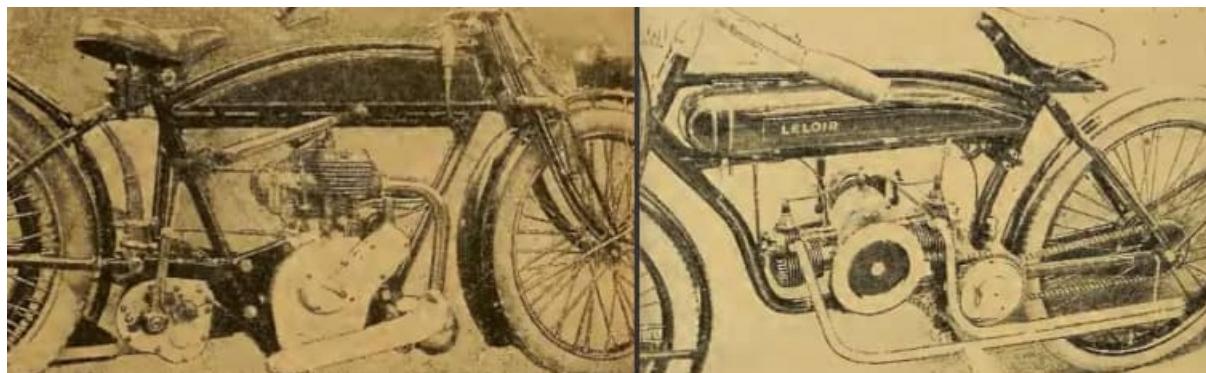
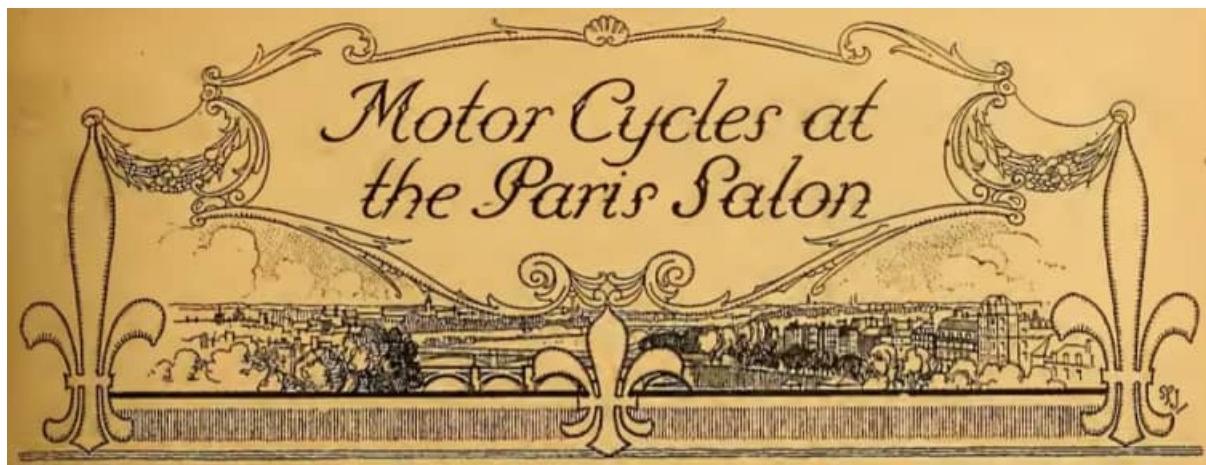
HW, Edinburgh."

"SIR,—WHY WAS IT THAT ALL the male competitors were compelled to wear 'crash helmets' in the Scarborough speed trials, and the ladies were not?"

ONE WHO WAS THERE, Manchester."

"SIR,—I SHOULD LIKE TO ASK A FEW QUESTIONS. I am a Colonial, and have had a fair amount of experience of touring in Victoria and southern New South Wales. I should like to purchase an English machine to take back with me, but so far have seen nothing to come within miles of an Indian Scout. Why do not English manufacturers build motor cycles instead of two-cat power sewing machines? I have not seen anyone riding a big twin solo since I arrived. If English manufacturers want to capture our trade they will have to build stronger frames and larger tyres. Why do all English machines have the saddle nearly over the back wheel? I rode a four-cylinder Henderson for some time, and it was the most comfortable thing I had ever been on; the saddle was just about half way between front and back wheels. Give me a long wheelbase for comfort every time. I have never noticed any increased tendency to skid. Why is the transmission on all English machines so terribly crude? The latest type of enclosed chain as fitted to the Triumphs and other makes is fairly silent, but the whole principle of chain drive to the countershaft is ante-diluvian. For the past six years, excepting a short interval when I had a Henderson, I have ridden 578cc JAPs, with Colonial frames and Brampton forks, and I have never been stuck up by fork or engine yet. I do not hit the high spots at 60 or 70mph, but I always keep up an average of over 30 on the roughest of country roads, which means as you know, a speed of close on 50 over the good parts. For the past three years I have had a Sturmey-Archer box, and in spite of every sort of ill use it has never turned me down. Still the chain to the countershaft makes, and always did make, a noise like a chaffcutter.

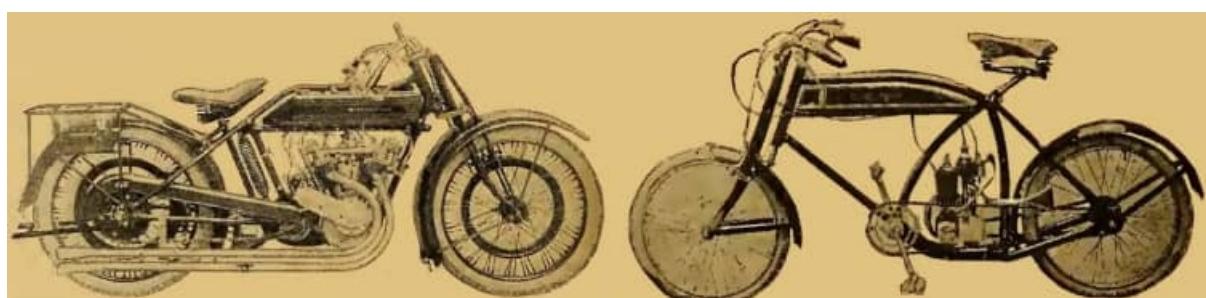
WH MOULE."



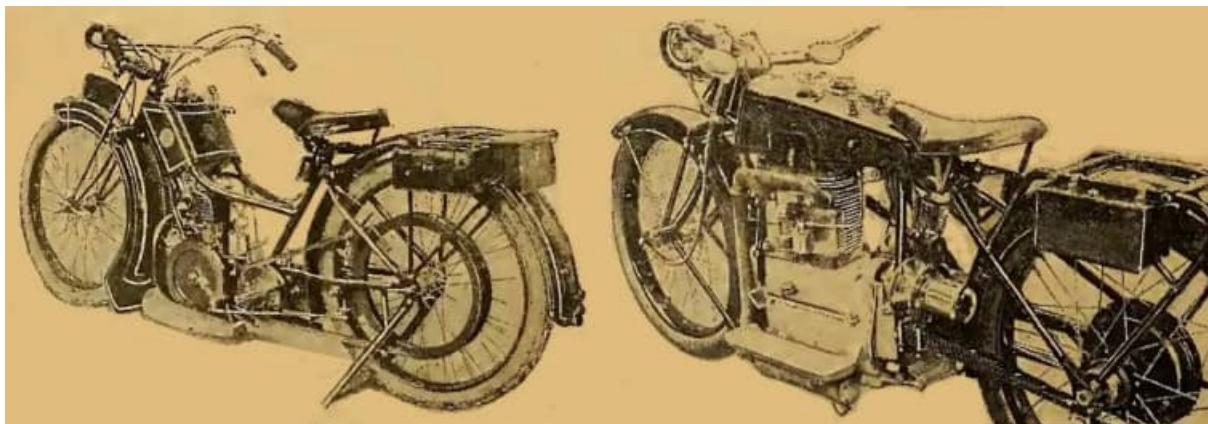
"The Griffon is a rather large but handsome machine with an Anzani engine, spring frame using laminated springs and Sturmey-Archer gear. (Right) Leloir—A flat twin four-stroke engine of 176cc with Albion two-speed gear and clutch, spring forks, chain drive, 650x50mm tyres."



"Sloping engines are popular in France: A 400cc ohv single—the Magnat de Bon. (Right) A compact design, the Terrot two-stroke."



"500cc Motosacoche sports model. (Right) Scooter or motorised bicycle? The Monet-Goyon, which has a miniature four-stroke engine with AOIV and chain drive."



"The only fully developed lady's motor cycle in the Salon—the Soyer, which has a tank integral with the duplex frame. (Right) Vertical two-cylinder engine and electric starting are two of the features of the Lutece."



"BCR single-geared open-frame machine of the scooter type. (Right) The Armor, fitted with Ballot combined engine gear unit."

"SIR,—I QUITE AGREE (AS A rider of a motor cycle since 1899) with the police in their campaign against noisy motor cycles. The majority of machines are much too noisy ; in fact, in many respects the present-day motor cycle is not in ad- vance of those of about 1904. It is often as noisy, as dirty—through want of proper mudguarding—and as hard to clean, as in those early days; in fact, as far as design goes the present motor cycle—with one or two exceptions—is in the same state to-day as cars were in 1903. The car in those days was a horse vehicle, minus shafts, and with an engine stuck on (at the wrong end, as it is to-day) the present-day motor cycle is merely a push cycle with a stronger and lower frame, and an engine, etc., stuck on. Many machines are not properly silenced by the makers many are made noisy by young people who think they are 'knuts' (really nuisances); others, again, are noisy because some people have an idea that an efficient silencer slows the machine, which of course it does not. About 1904 I had a Clement-Garrard motor bicycle (which incidentally was a four-stroke with outside flywheel, over- head inlet valve, and detachable head), rated at 2¹/₂ h.p. I had a hole cut in the exhaust pipe about 2in. from the cylinder. When this hole was uncovered and the machine was exhausting practically into the open air, it would not climb a slight gradient, much less a hill. Close the cut-out, and it climbed wHL. So much for loss of power through an exhaust box. Again, why are so many motor cyclists so dirty? Many have filthy hands, dirty faces, dirtier overalls, etc. fact, they are a disgrace to the sport. Such dirt is quite unnecessary. Is it another phase of the "knutty" rider? This type of rider, with his noisy machine and dirty appearance, does not encourage the non-rider.

MD, Cosham."

“SIR,—WHY MUST THE POLICE persecute motor cyclists for making a noise, while lorries, steam waggons, electric trams, and even railway trains are allowed to create such a din that one cannot hear oneself speak ? After all, the exhaust of a motor cycle is not the only unpleasant noise that ever happens. I have been between two babies, both giving tongue continuously, in a non-corridor railway carriage for two hours.

BIG SINGLE, London, NW8.“

“SIR,—UNDOUBTEDLY, WE HAVE TO THANK a minority of drain-pipe merchants for the unwelcome police attention of the moment; it is surely up to the more reasonable majority to put our house in order, before it is done for us. Is it not possible, with the co-operation of the motor press, to convince the few that untimely and unseemly noise is the worst possible advertisement for the sport, comes under the general heading of bad form, and that ‘it is not done in the best circles’?

TWENTY YEARS’ RIDER, Retford.

“SIR,—WHAT IS A LIGHTWEIGHT MOTOR cycle? You say, ‘One should encourage the 150cc engine.’ But it is absolutely no use encouraging a small engine unless the total weight of the machine is limited. Look at the last TT races. Could anything be more absurd than calling a motor cycle weighing 253lb a lightweight, simply because it had a small engine? There were many machines in the Lightweight TT that weighed many pounds more than the Junior and Senior machines! No! Keep the limit of a lightweight under 100lb, all on, with a two-speed gear, and perhaps there will some day be developed the ‘motor cycle for the million’.

EDMUND CANBY.“

“SIR,—I ONCE ADDED 15MPH TO A 1911 Rover by a very simple alteration, but I give my secret to all and sundry for what it is worth. Whilst decarbonising I accidentally knocked a piece off the skirt of the piston as large as. a penny (with a King Dick!). As it was a sturdy piston, I assembled the engine with it in this condition and found it not worse, but many miles an hour better, and the old handle-bar vibration missing. I had accidentally perfectly balanced the old engine. At some speed trials I astounded even myself by doing the flying mile in 20.8sec with a 5 to 1 gear. Somewhere about 58mph and a good 3,000rpm. I trust none of ‘Ixion’s’ pet novices will adopt this as a tuning hint, but will give them a good tip. Fit a 28in. wheel speedometer on a 25in wheel machine and it sends the speed up nicely. That’s how my Squirrel does 72mph.

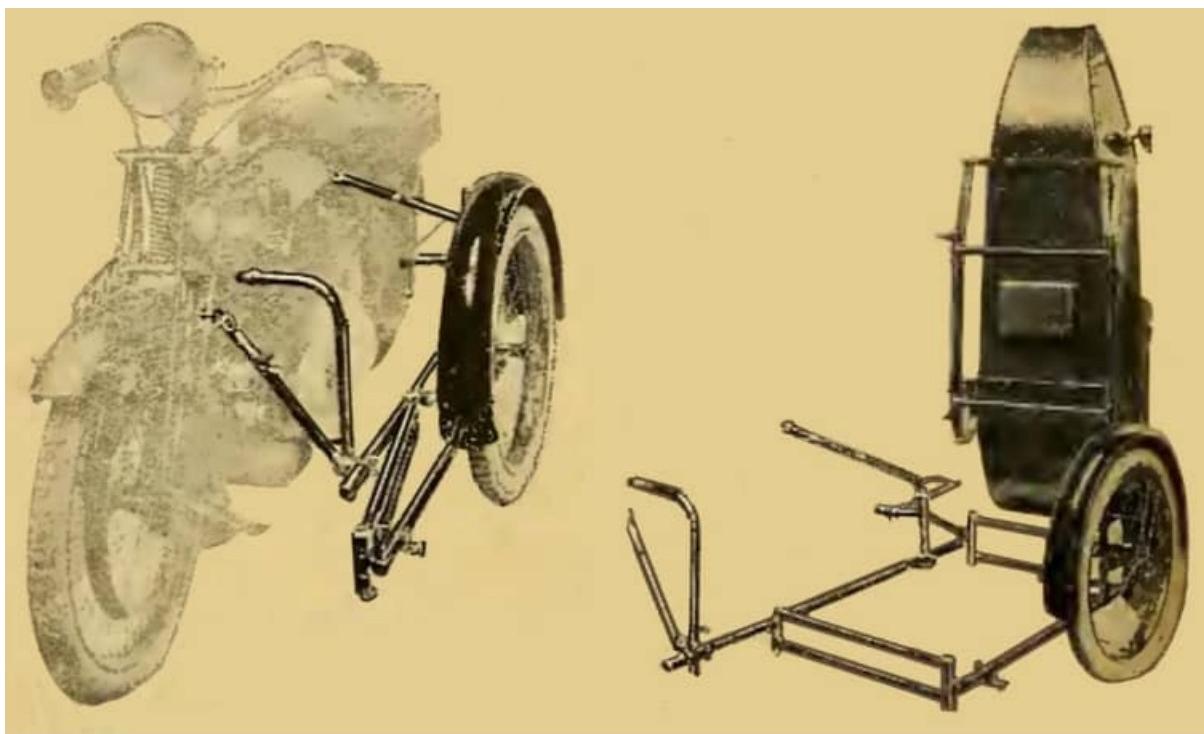
‘BEEMOTH’, Liss.“

HARKING BACK TO THE DAIMLER Einspur of 1885 was the Einspurauto (one-track car) with its waist-high body, screen, hood and steering wheel running on two wheels with retractible outriggers. Unlike the vast 1913 Biautogo the Einspur was a production vehicle with a 498cc water-cooled one-lunger, cantilever rear springing and a claimed top speed of 55mph. It was designed by Gustav Winkler and built by firearms manufacturer Mauser which was banned from making guns following the Great War. Some examples were built under licence in France as the Monotrace (one track).

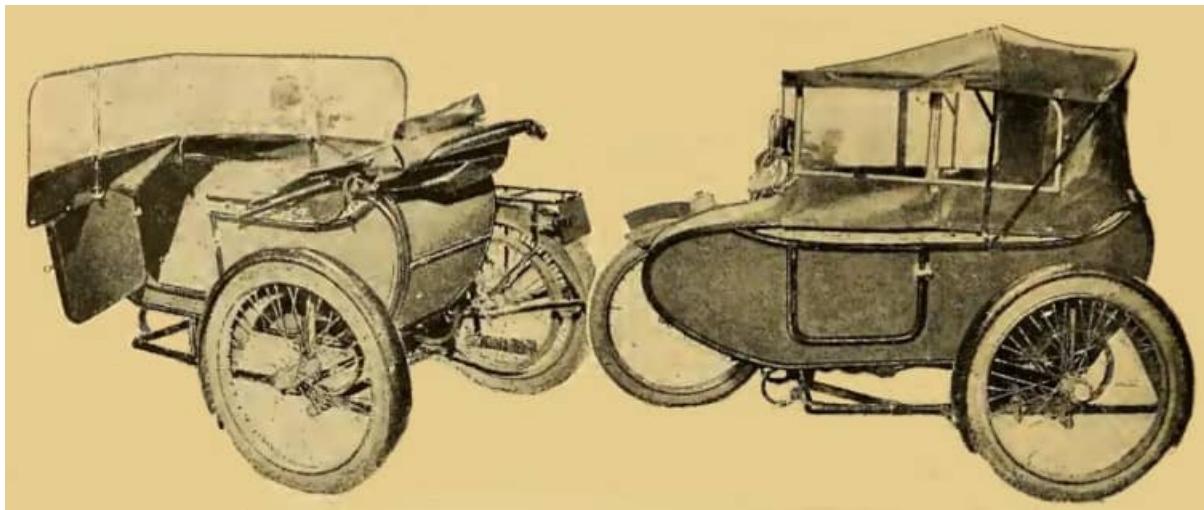


The Einspur joined the ranks of single-track cars.

"A FOLDING SIDECAR CHASSIS produced by the Dorway Sidecar is arranged to carry a standard complete coachbuilt body and springs, mounted on a light rectangular frame, which can be lifted off when it is desired to fold the chassis alongside the motor cycle in order to pass the outfit through a gate or doorway. There are several additional advantages besides the ability for passing through narrow spaces (down to 28in wide), in that after the removal of the body the inner side of the motor cycle is completely accessible and can be reached for inspection or adjustment just as easily as the off-side...In construction the Dorway chassis is robust, and the workmanship throughout is excellent; all pivot joints are of first-class fit and are packed with grease to prevent rusting up, and the construction is such that the complete outfit is perfectly normal in appearance, any type of flat-bottomed body being suitable."



"The medium weight Doorway chassis folded almost completely. (Right) Body removed showing sub frame. Apart from the collapsible chassis there is distinct advantage in a quickly detachable body."



"The Easyquip hood and screen has been designed to convert a normal sidecar body into the equivalent of a cabriolet. Not the least attractive feature in this design is that the door may be opened whilst the hood is in position."



"Curious carnival clothing.

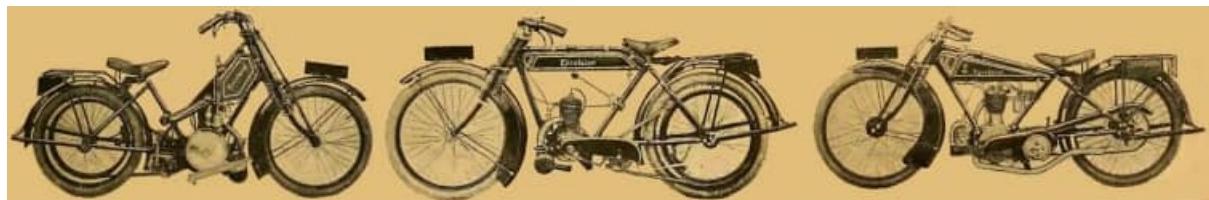
This owner of an Enfield outfit saw the humorous side of a wet summer. His outfit represents the '1922 Summer Tourist', in the recent Hull Motor Carnival held in aid of St Dunstan's."

"A HUMMOCKED SURFACE IN THE MAIN road (London-Brighton) has been seriously suggested at Sutton, Surrey, in order to limit the speed of vehicles in the High St. The hummocks proposed are a series of 9in-high undulations calculated to be unrideable at over 10-12mph."

"OFFICIAL ANNOUNCEMENTS OF RECORDS by the Auto-Cycle Union continually give the incorrect abbreviation for kilometre, which is invariably given as kilo. Kilo has really no meaning, but in France is the colloquial abbreviation for kilogramme. The correct abbreviation for kilometre is km, and for kilogramme kg. Surely the official body should set an example in accuracy."

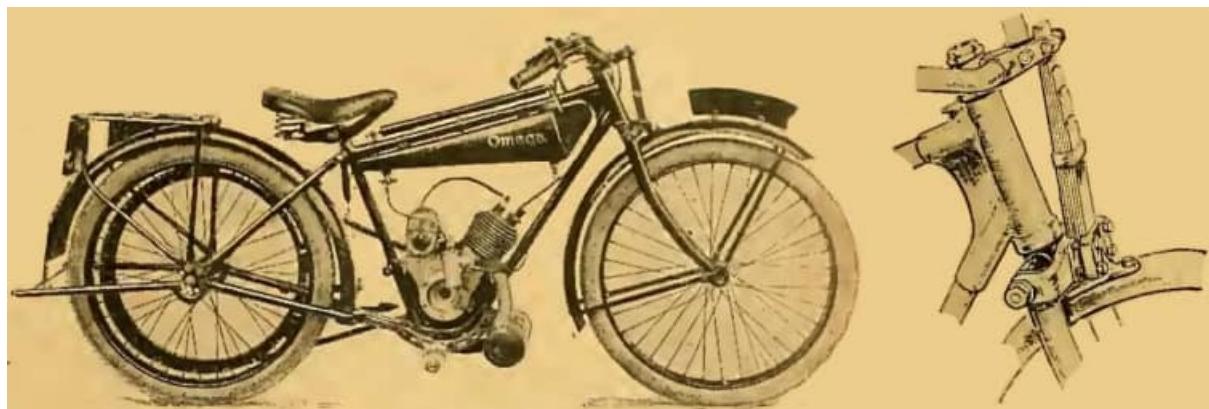
"INCLUDED IN THE EXCELSIOR RANGE for 1923 is a new miniature two-stroke fitted with the latest type 147cc Villiers engine...both an electric lighting set and engine shaft clutch can be fitted at a very moderate figure...Although many people consider that so small a machine is something of a toy, nevertheless, from personal experience, we may state that this example is a thoroughly practical little machine, well suited to the needs of an enormous number of people...Next in engine size amongst the products of Bayliss, Thomas and Co come two models, both fitted with 250cc Villiers two-stroke engines, flywheel magneto, Sturmey-Archer two-speed gear, clutch and kick-starter, Druid forks, and 2½in tyres, but the first has a normal frame with sloping top tube, and has 26in wheels...the second is an open-frame model with 24in wheels...The well-known 349cc Blackburne-engined Excelsior remains almost unchanged with

a Burman three-speed gear, clutch and kick-starter. Druid forks, 26×2½in wheels and internal expanding brakes front and rear...however, a new model will be listed. The specification is exactly as above, but a 350cc special JAP engine is fitted, and with its all-chain drive, large silencer, and sensible mudguards, it forms a most attractive addition to the range. The needs of sidecarists are catered for by the 976cc sidecar outfit, fitted with side-by-side valves, JAP engine, Burman three-speed gear, with all-chain drive, 28x3in tyres, and internal expanding brakes front and rear."



From left: "Especially suitable for ladies, a 250cc open-frame model with clutch and kick-starter. an Excelsior lightweight fitted with 147cc engine. An addition to the Excelsior range; it is fitted with a 350cc sports JAP engine."

"THE 170CC TWO-STROKE OMEGA JUNIOR, manufactured by WJ Green of Stoke, Coventry is the latest ultra lightweight...the new model weighs but 96lb and is designed to provide a saddle height, in the lowest position, of no more than 26 in from the ground. An unusual feature is to be found in the front fork, which is pivoted below the steering head and employs a vertical leaf spring attached rigidly to the crown and capable of sliding in a link attached to the steering head. We can speak highly of this fork in action, for a short trial run convinced us not merely of the wonderful pulling powers of the tiny engine but also of the general comfort of the machine."



"Between the motorised bicycle and the lightweight touring machine—the 170cc Omega Junior. A vertical laminated spring is used in the Omega-Junior fork."

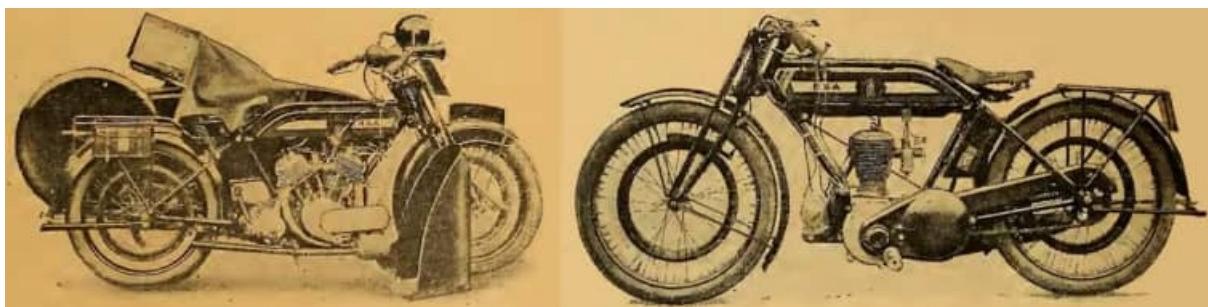
IXION SOMETIMES LET THE FACETIOUS facade slip and took a serious look at the industry: "It is computed that the existing motor cycle plants of Great Britain could turn out 273,000 machines per annum, working at full pressure. The present annual output is rather under 50,000 machines. More than 150 firms (including many small assemblers of standardised units) are occupied in supplying this rather beggarly total. Some significant facts emerge from a consideration of these figures, which I owe to The Motor Cycle Trader. Lumping the factories together, each of them sells 330 machines a year. The Ministry of Transport's taxation figures for Great Britain (dealt with on another page) denote that only 377,000 motor cycles were in commission altogether on August 31st. As patrons of the industry, we users must confess that its condition is not too unhealthy. We desire from any manufacturer whose wares we buy that he shall sell us a machine at rock-bottom price; back it up with generous service; develop it to the

limits of perfection embodied in the design; be financially stable, so that spares shall be available for 20 years and keep his experimental and research departments so hard at work that he can give us something still better presently. It is quite obvious that very few firms can afford such a programme under the conditions outlined above. No wonder that fascinating novelties bob up, and presently disappear, as their sponsors exhaust their capital. Real health can never adorn the motor cycle industry until it is running smoothly and working 'up to capacity', which implies an annual output of round about 270,000 machines per year (if present conditions are maintained). Alternatively, a number of firms might go out of business, and the present safes of 50,000 continue, emanating from a few factories running at full blast. In this case, the industry might tend to stagnate—we should get less variety in design. One solution probably lies betwixt and between. Unless Britain becomes much wealthier, it can hardly absorb 270,000 machines per annum. Once again I repeat, therefore, that a solution lies in an energetic sales campaign in overseas Dominions. The obstacles to exports which have existed since the war are rapidly becoming things of the past."



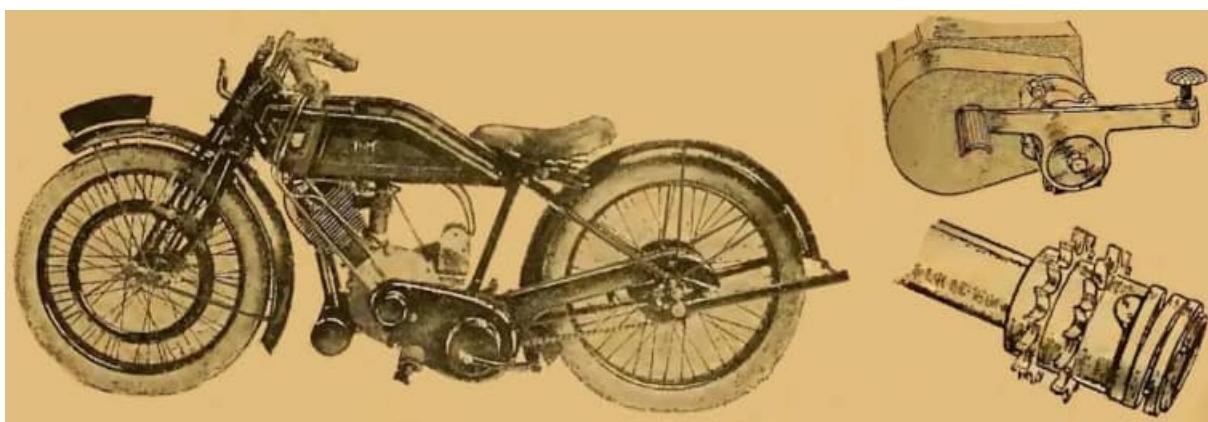
"The willing horse. One of the entrants in last week's gliding competition using his BSA to drag his monoplane to the top of the hill."

BSA LAUNCHED TWO MODELS "of considerable interest to solo riders. The first is an entirely new sports model of 80x98mm (493cc)...The lines of the machine are distinctly sporting and graceful, the frame having a comparatively short wheelbase and a three-speed gear box being housed above the bottom bracket. The drive is by chain throughout, a faced cam type of cushion drive being mounted on the engine shaft. Having a rounded nose and tapering slightly to the rear, the tank is pressed from sheet brass and is well rounded at the edges and corners...the new 349cc BSA, the engine of which has a bore and stroke of 72x85.5mm. This, again, is a new model, and is to a certain extent a small edition of the 493cc sports machine...Another new model is the 'Light 8', which has a twin-cylinder engine of 80x98mm bore and stroke (936cc). This engine is very neatly housed in a slightly modified form of the 'Light 6' frame...the machine is a very attractive fast sidecar mount. It incorporates most of the well-known BSA features, including mechanical oil pump, good mudguarding, excellent finish, and mud-proof tappets. The drive is, of course, by chain throughout, a three- speed gear box being employed. The rear wheel is of the quick-detachable type. Both brakes operate in dummy belt rims."



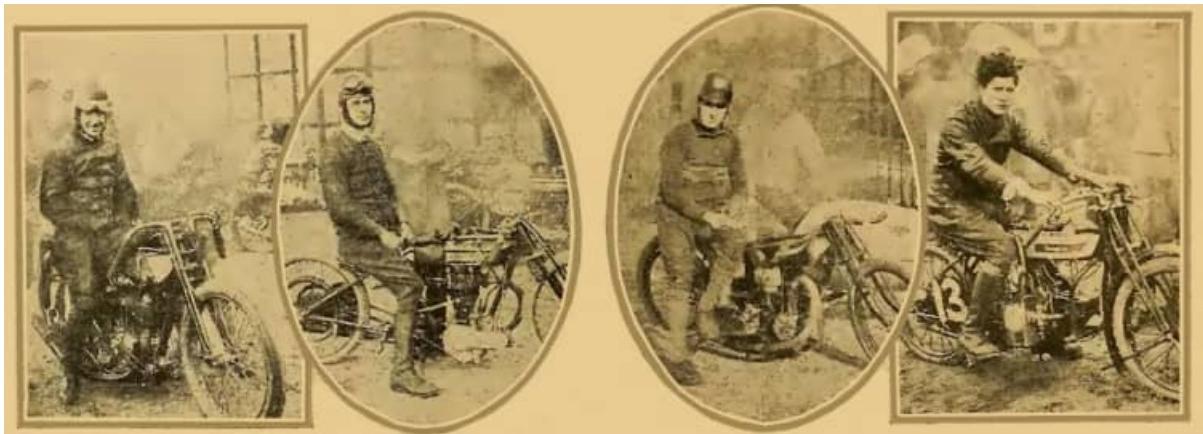
"Foot-boards and leg-shields are instantly detachable on the 'Light Eight' sidecar outfit.(Right) Mechanical lubrication and effective chain guards are features of the 493cc sports model BSA."

"ONE OF THE OLDEST MAKES IN GREAT BRITAIN, the P&M has enjoyed a reputation second to none for high-class workmanship and finish as well as reliability. During the last year or two its speed has been increased surprisingly, and now a new sports model has been introduced which will satisfy the keenest enthusiast. Unlike many sports models, it is not a standard machine fitted with a special engine and with various parts cut down for the sake of lightness, but is specially built as a fast touring mount, pre-eminently comfortable, with a low saddle position (28in from the ground) and wide flat handle-bars designed to give perfect control without stretching or straining any part of the body. Owing to the fact that an entirely new frame has been constructed, with the top tube curved in a sweep towards the rear so that the riding position may be as low as possible, both engine and gear box are brought down 3in without affecting the ground clearance. Reduction of weight has been effected by eliminating such luxury fittings as the kick-starter and carrier (which, of course, may be had as extras), but the mudguards are wide and efficient...There has been little alteration to the 555cc engine, but a die-cast aluminium piston has now been fitted...Little alteration has been made in the transmission, but a slight change has been brought about in the change speed mechanism, as in the 'Panther', as the new machine is called, the dog clutches are actuated by means of a single gear lever of conventional design, while the expanding gears taking the place of clutches are worked by a rocking pedal...The workmanship and material throughout is superb. The rear brake is of the contracting type, actuated by the rider's left heel, and easily accessible from the foot-rest, while the front is of the dummy belt rim pattern, controlled from the handle-bar. The weight is 256lb and the price £100. The chief attraction of the machine is not only its extreme comfort, but the charm provided by the four speeds, which allow the joys of the high top ratio to be appreciated to the full."



"Comfortable riding position and an adequate ground clearance are combined in the new fast touring model. Foot control is employed only for the selector clutch portion of the gear. Improved adjustment of the shock absorber is provided."

"ALTHOUGH LAST SATURDAY'S CHAMPIONSHIPS meeting at Brooklands was probably the most successful of the year, it is not easy to say exactly why. Perhaps it was because the racing was of a uniformly good, if not excellent, standard throughout. It was not, to use horse-racing parlance, entirely a backer's day; for instance, neither of those popular favourites with the crowd, CG Pullin and J Emerson, succeeded in winning a race, although a championship or two would certainly have been a fitting conclusion to their previous accomplishments and their energetic specialisation in track work during the year. Both of them experienced bad



From left: "Four championships were won by H Le Vack—two on the 998cc Zenith-JAP and two on his ohv lightweights. The 500cc solo and 600cc sidecar championships were won by V Horsman (ohv 490cc Norton) as well as the all-comers handicap. After being delayed at the start WD Marchant (349cc OK-Blackburne) won the 350cc sidecar championship, breaking the five-mile record in doing so. FT Hatton (746cc Douglas) won the 750cc championship after a race full of incident but finishing tamely."

luck. H Le Vack, on the other hand, was in great form and gained four of the chief honours—two with the 998cc Zenith-JAP and two with the smaller ohv New Imperial-JAPs—in each case without apparently having to exert himself fully. Even the American twins had to be content with places in the 1,000cc event. The 600cc sidecar and 500cc solo classes fell comparatively easily to V Horsman's ohv Norton, and the remaining two—350cc sidecar and 750cc solo—provided the only two genuinely surprise winners, in WD Marchant (349cc OK-Blackburne sc) and FT Hatton (746cc Douglas)...Anything might have happened in the 600cc sidecar championship, but Pullin (Douglas sc) went out first lap with a burst gear box sprocket, and Emerson's Douglas caught fire when leading on the second circuit."



"Back to water-cooling? Purely as an experiment, FB Halford has had a water-cooled head fitted to his four-valve Triumph. The radiator is situated in the fore part of the tank. (Right) Silencers at

Brooklands: O de Lissa's Motosacoche, GH Tucker's Norton, J Bance's OEC-Blackburne, G Packman's Packman, V Baxter's Holroyd."

"FOR MONTHS PAST WE HAVE very seldom referred to manufacturers' nominal hp in designating a particular model. There have been so many anomalies that it became desirable for us to take the lead and to classify the various motor cycles by the capacity of their engines in cubic centimetres. The makers' nominal hp is not a unit of power; it is not even a rough guess at the power developed—it is merely a habit. For years the 500cc engine has been known as a '3½hp', a 350cc as 2¾hp, 250cc as 2¼hp, and so on. If all makers had used the same figure for engines of the same size, it might not have been so desirable to institute a change. But whereas some manufacturers listed 500cc machines as 3½hp, others (sometimes fitted with the same engine unit) termed them 4hp. The maker of a 633cc " machine terms his motor cycle a 'big four', another regards a 550cc as a 4hp machine, yet another having an engine of 557cc decides upon 4⅓ as the nominal hp. It is easy to see that not only are these 'nominals' confusing, but they convey no meaning. Notwithstanding, the insurance companies fix their schedules on manufacturers' nominal ratings, and, to quote a well-known example, the owner of a 499cc Rover or Blackburne is forced to pay as much as the rider of a 633cc Norton. Twelve months ago the Auto-Cycle Union instituted what is termed the ACU hp rating, which is the rating of power on the decimal system, accepting 100 cc as 1hp. Thus 250cc became 2.50hp. But why use the hp unit at all? Because James Watt originated a unit of power is no reason why we should use it to indicate size. It was never intended for this purpose. 500cc or 250cc conveys more to the mind than 5.00hp or 2.50hp, because it cannot be confused with existing nominals...if every manufacturer abandoned hp, insurance companies would have to consider engine capacity, and anomalies would eventually disappear."



"Yet another water splash. Youthful enthusiasts watch HS Perry (BSA sidecar) make light of the Yardley Wood watersplash in the Birmingham MCC trial last Saturday."

"IT HAS BEEN DECIDED TO HOLD a further Brooklands meeting on Armistice Day, under the combined auspices of the BMCRC and the BARC, when the entire proceeds will be devoted to the Weybridge Remembrance Day Fund. This event, it is stated, has the full approval of many of the local residents, who had previously complained of the noise of the track."

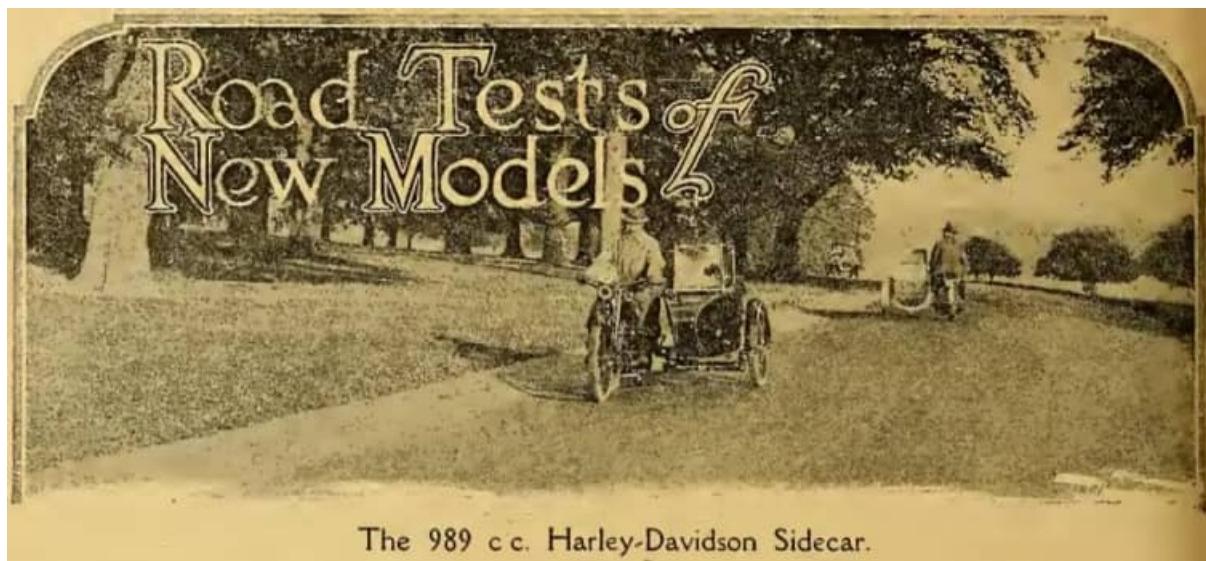
"IN AUGUST THERE WERE 377,943 motor cycle and 314,769 car licences in force. The proportion of motor cycles should be still higher next year with the increasing number of miniature low-priced machines."

"THE CLUB SECRETARY IS SELDOM valued at his true worth. Usually he is an unselfish enthusiast who toils long and hard in the interests of others. Virtue may be its own reward, and undoubtedly he gains much pleasure from the pleasure of others; but whether he desires it or not, he deserves greater recognition. He seldom gets it; indeed, too often his very existence is only recalled to revile him. Often it is mere thoughtlessness. Motor cyclists in general and club men in particular rightly pride themselves on being good sportsmen. Let them retain this trait in their relations with their club officials as well as with their fellow members. Let them remember that in nine cases out of ten the secretary would infinitely prefer to be a competitor, but he recognises that somebody must take up the organising duties and being very keen he accepts the task himself."

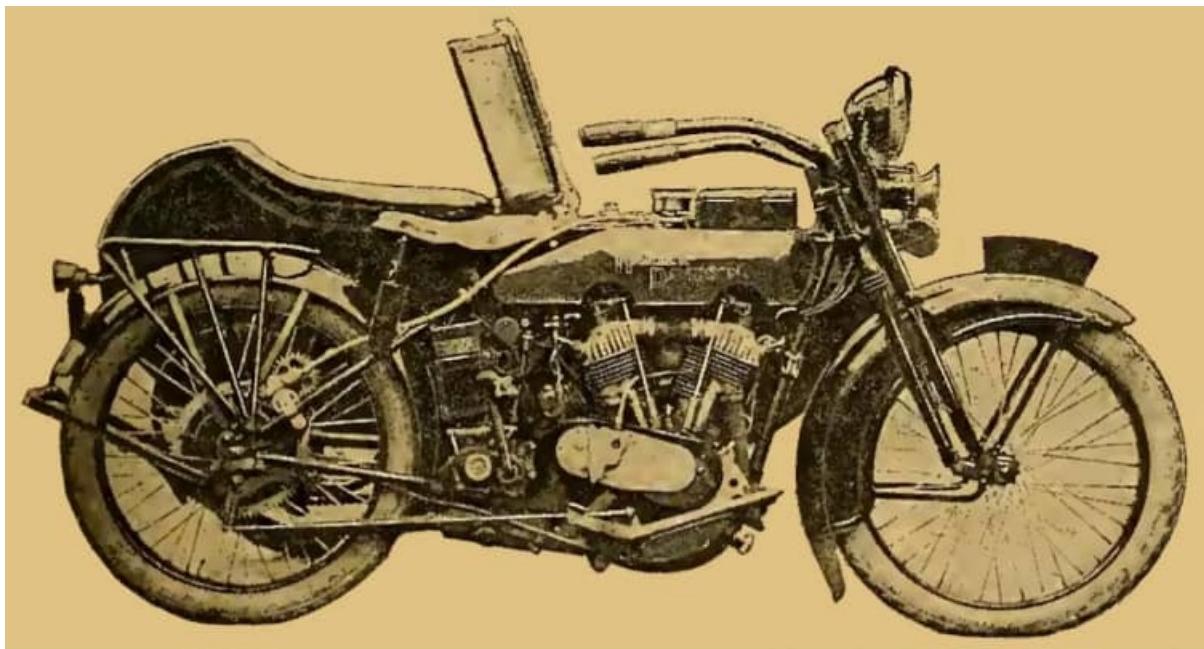
"WHILE WE HAVE NEVER WHOLEHEARTEDLY agreed with the practice of pillion riding on solo machines, we cannot understand why the daily press should be so obviously biased concerning its dangers. We mention the daily press first because undoubtedly it has helped to shape the unreasonable prejudice displayed on the part of certain sections of the public. Whenever there is an accident and a pillion passenger is involved, the practice is blamed; this was particularly noticeable at a recent inquest, where the Coroner made statements which had no foundation whatsoever in fact. This outcry against a popular form of motor cycling is absurd, but nevertheless it must tend to cause harm to the motor cycle industry generally. It is a matter which the British Motor Cycle Manufacturers' Union should investigate, and while we do not suggest propaganda to make pillion riding more popular, there should be ways and means to remove the ignorance and prejudice of newspaper headline writers and those gentlemen whose duty at an inquest is to consider facts and not to comment on matters quite irrelevant to the case concerned. It does not seem to be sufficiently well known that the Ministry of Transport has investigated the so-called dangers of pillion riding, and in a report issued this year implied that there was insufficient evidence to show that pillion riding was dangerous."

"SIR,—IN HOLLAND PILLION RIDING is the rule rather than the exception, and one seldom sees a rider without a passenger 'up' behind him. Yet there is no outcry against its dangers here. We think this is due to the fact that all pillion passengers, without exception, both male and female, sit astride the pillion seat. It will be found, we imagine, that the custom of sitting sideways is the dangerous factor in pillion riding. It merely requires a press campaign in favour of the more sensible, if less graceful, position to get rid of the menace of popular alarm and panic legislation.

PG WILSON (BCA, Ltd), Amsterdam."

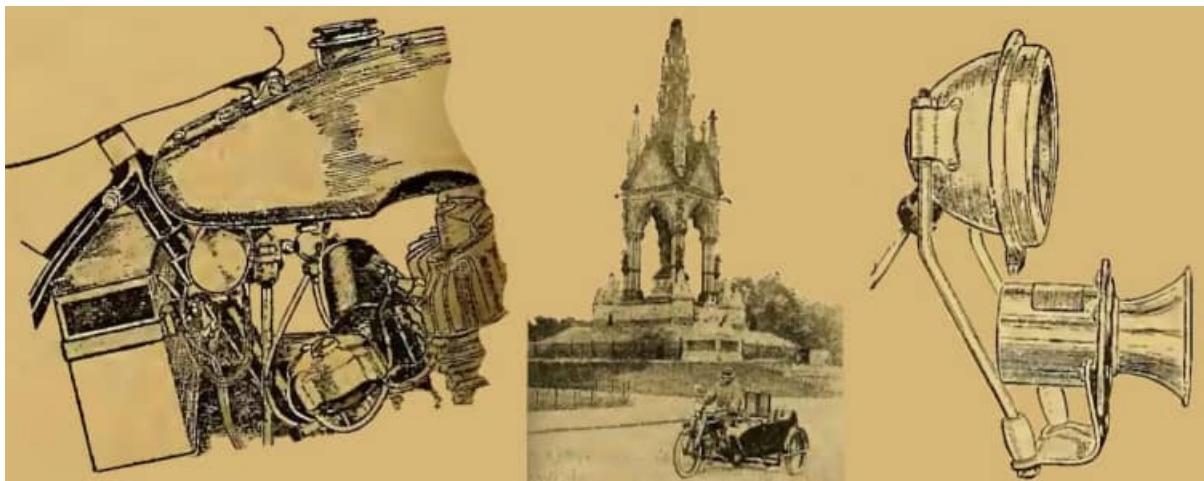


"ONE OF THE THINGS THE NOVICE cannot understand is the joy of the sense of power. He reads that a 350cc machine will take a sidecar at 20mph anywhere within reason; he thinks that as he will never exceed the legal limit he will have all the power he needs. Power gives the greatest zest to riding, but only if it is used discreetly. In driving the 989cc Harley-Davidson sidecar there is power and to spare it is not often needed all at once, but it is there when it is. The speed on the level and uphill are all that can be wished for, and, what is just as important, the Harley-Davidson is as pleasant to drive in narrow winding lanes as when swallowing miles on the open highway. It has an excellent clutch, and if this is allowed to slip just the least shade there is absolutely no snatch, and the engine runs at a mere tick-over as smoothly as can be desired. Much of this flexibility is due to the carburetter, and our American cousins have shown their wisdom in supplying and fitting to their motor cycles a carburetter which will give even firing at slow speeds, is controlled by one lever, and yet is capable of adjustment to suit varying atmospheric conditions. Forks and saddle give as much comfort as if the frame were sprung; the steering is excellent, and the acceleration is also very fine. Both brakes possess immense power, and either will stop the machine with equal efficiency. The two brake pedals are on the off side, one being actuated by the toe, the other by the heel. Used in narrow country lanes, in dense traffic, on good main roads and by night as well as day, the outfit acquitted itself remarkably well. Changes of gear were seldom necessary, and when they were second nearly always sufficed. Low gear is in the nature of an



"Typical of the best American motor cycle practice, the 989cc electrically equipped Harley-Davidson sidecar outfit."

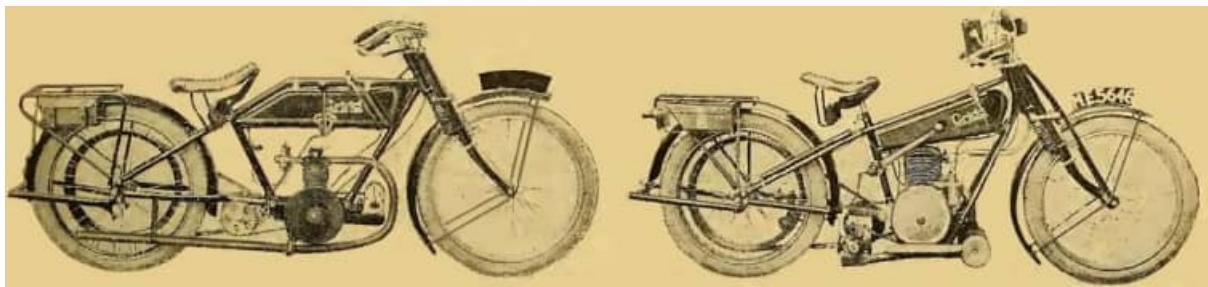
emergency ratio. Driving by night anywhere near London is none too pleasant nowadays, as there is a great deal of lorry traffic and many cars with blazing head lamps; but it loses much of its terrors thanks to the Harley's excellent electric equipment. By means of the little switch placed just where the cable enters the lamp, if a car driver dims his lamps, the Harley driver can return the courtesy by switching on the dimmer bulb, which also gives just enough light for town driving and is quite useful in fog. Another good feature of the latest Harley is the automatic charging switch which prevents the discharge of the accumulator when the engine is running slowly or the machine is at rest. It is difficult for one who drives many different makes of motor cycles to criticise the methods of control, for any system is easy when one is used to it. For this reason no criticism of the twist grip throttle control is made, for habitual riders of American machines appreciate it to the full. On one point of the control mechanism we may comment, however; frankly, we do not like the method of controlling the clutch. Its hand lever is not convenient and its pedal is of the rocking variety, the movement of which neither blends with the twisting of the handle-bar grip nor agrees with the natural push forward action of the brake pedal. It is not natural to stamp on the brake pedal with the right foot and employ a totally different movement with the left; the hand clutch control would be infinitely preferable if it were a simple pull-up lever on the handle-bar and not a lever placed somewhere beneath the left thigh at the side of the machine. One who has become accustomed to foot operation of the clutch or to the handle-bar lever finds the alternative disconcerting at first. The same remark applies to twist-grip throttle control, but the dexterous manner with which Harley-Davidsons are handled, both solo and sidecar, indicates that, while the controls are different from the ideas of the majority of British manufacturers, it does not necessarily follow that one system is superior to the other. It is merely a matter of what one is accustomed to use. The



From the left: "Electrical equipment and distributor which shields the HT wires from rain. The disposition of the fuse box and accumulators is also shown. One of London's roads to the West Country with the Albert Memorial in the back ground. Head lamp and electric horn are supported on the same bracket and a quickly detachable lamp glass is fitted."

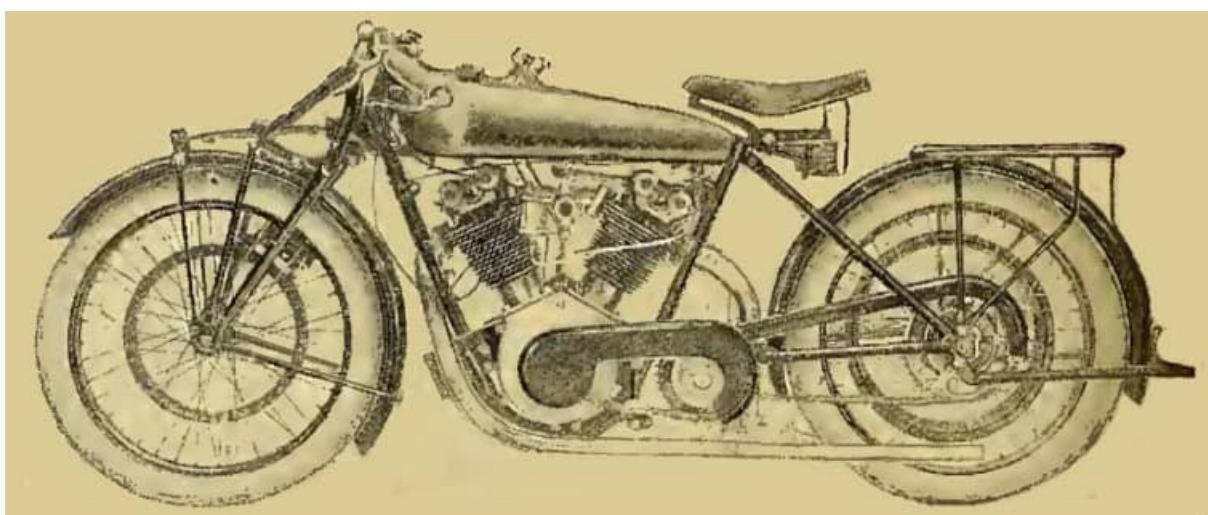
Harley, like other American makes, has an ingenious interlocking device which prevents the movement of the gears unless the clutch is disengaged. Should the adjustment be incorrect, the gear can be changed, but the clutch will not fully engage. It would be no great difficulty to secure the correct adjustment were the necessary spanners supplied, but the tool-kit is inadequate. This is a small item, but one which the makers could easily rectify. Apart from these details, the Harley-Davidson sidecar outfit is a splendid machine. Besides the flexibility and power of the engine, its steering is excellent; and, provided the clutch is judiciously used when travelling slowly, smooth running can be obtained throughout a wide range of speed. Our general impression of the outfit was distinctly favourable. Its power and acceleration are superior to many machines of similar price or capacity, and it must particularly appeal to the sporting rider. In fact, it is one of the first favourites with that fraternity, although as sold it is essentially a comfortable touring outfit. The sidecar itself manages to combine a reasonably symmetrical appearance with ample roominess—not at all so common an attainment as one might imagine. Finished in the same rich shade of olive-green as the machine, it forms a very attractive-looking whole, which gives no indication that the attachment is manufactured some 4,000 miles away from the factory that produced the cycle. This year the Harley-Davidson has been exceptionally successful on the road in this country and also on the Continent. Four gold medals were won in the ACU Six Days Trials with an entry of four riders, three of whom tied for the team prize; one special gold medal in the International Six Days Trials, and two ordinary gold medals; while many successes have been gained in Italy."

"ONE OF THE MOST ATTRACTIVE features of the Grigg is its duplex frame design [which] is utilised for the two larger models, of which the most powerful is fitted with a 348cc Villiers two-stroke engine with flywheel magneto and lighting equipment. It is practically a double-purpose machine, but the solo model has only two speeds while the sidecar machine has three speeds; a Sturmey-Archer box is used in both cases, drive being by chain and belt. For lighter solo riding Grig supplies a 211cc two-stroke engine of its own make...For novices and elderly riders a 181cc miniature has been introduced. The engine, which is a four-stroke with overhead valves, has an aluminium cylinder, forming part of the crank case casting, a steel liner is inserted and the head, of cast iron, is detachable."



"Built with an ordinary diamond frame, the 181cc four-stroke Grigg machine has overhead valves. (Right) A useful double-purpose mount, the 348cc two-stroke Grigg."

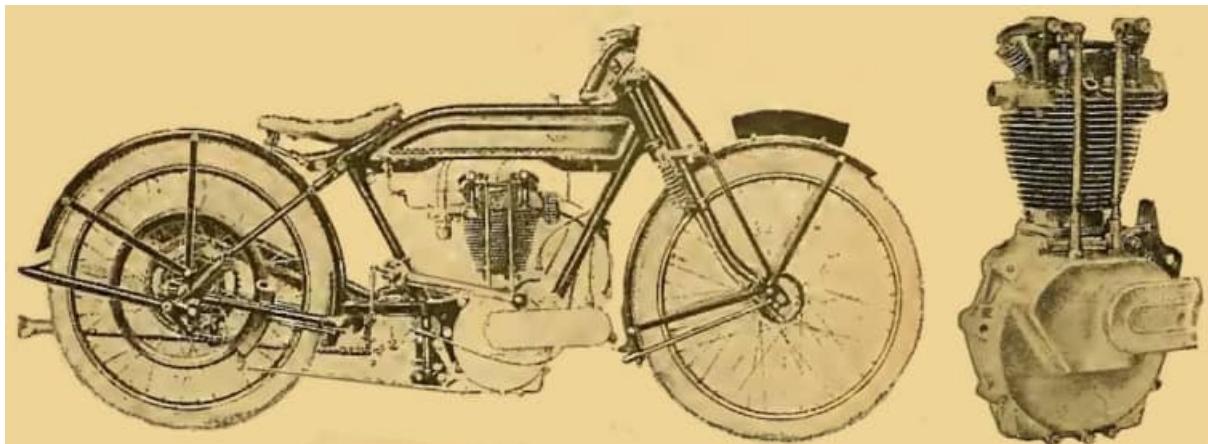
"OF RECENT TIMES THE MARKET for the big twin enthusiast has received more attention from British manufacturers. The latest addition to the steadily growing list of machines in this class is to be known as the Croft-Anzani Super Eight. As may be gathered from the name, the engine fitted is the latest type of Anzani twin with four overhead valves per cylinder. The engine is housed in a duplex loop frame of sturdy construction, the duplex tubes allowing the exhaust pipes a straight flow between the tubes, the rear pipe passing also through a hole in the bottom bracket casting; the exhaust gases are then led to a large flat cast aluminium silencer, from which the exit is by a tail pipe on either side of the rear wheel. Transmission is by chain throughout, a close-ratio Sturmey-Archer box being employed, with a shock absorber in the clutch and an Enfield cush hub in the rear wheel. A saddle tank covers the straight top tube, and has a capacity of three gallons of fuel and one gallon of oil. Montgomery forks are fitted, and both brakes are of the dummy belt rim type—one on each wheel. Lubrication is by Best mechanical pump. Since the machine is designed to be of the sporting type the mudguards are somewhat narrow in section, but special wide guards may be fitted to order."



"One of the few big twins available with four valves per cylinder—the new Croft-Anzani."

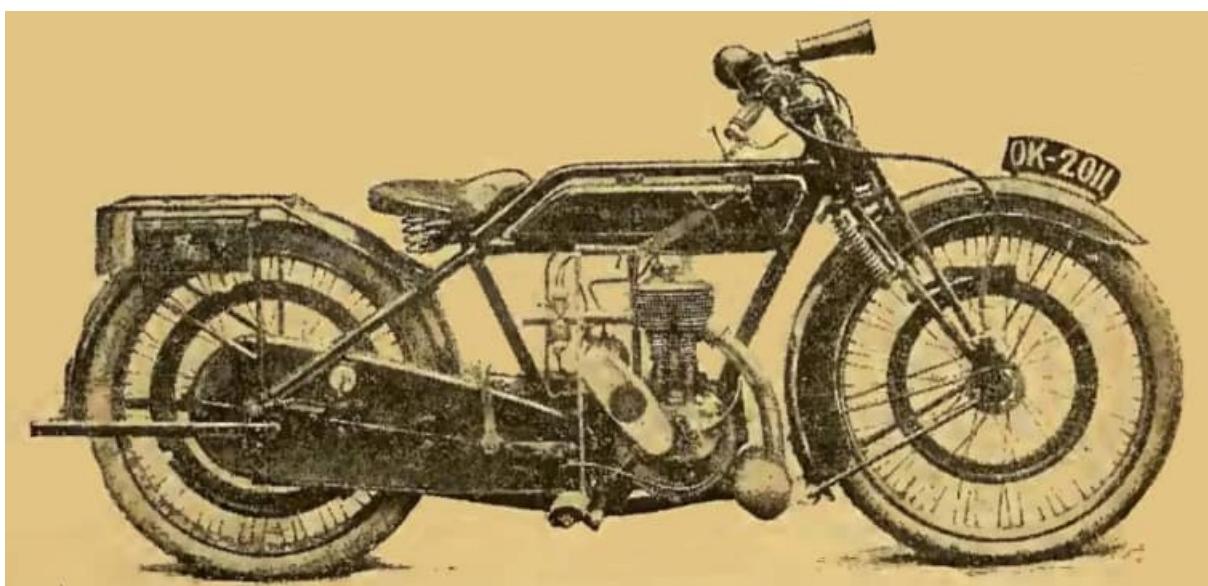
"THOUGH THE OVERHEAD VALVE NORTON has now been with us for a considerable time it is not generally realised that this type has already been standardised and is obtainable by the buying public...it has been found to be possible to lower the over-all dimensions of the ohv engine; besides this, the cylinder head ribs have been modified to provide increased cooling area...a new frame has been designed, and though it follows the lines usually adhered to by the firm, the saddle position is both lower and slightly further forward than previously. In addition, adjustable footrests have been fitted and large head races. In order to comply with the law a large tubular expansion chamber is combined with the run of the exhaust pipe, the pipe being

attached to the cylinder by a ribbed nut. Other details include an internal expanding front brake."



"In its production form, the ohv Norton looks just as fast as it has proved to be. (Right) Clean, sturdy design and construction are followed in the ohv engine."

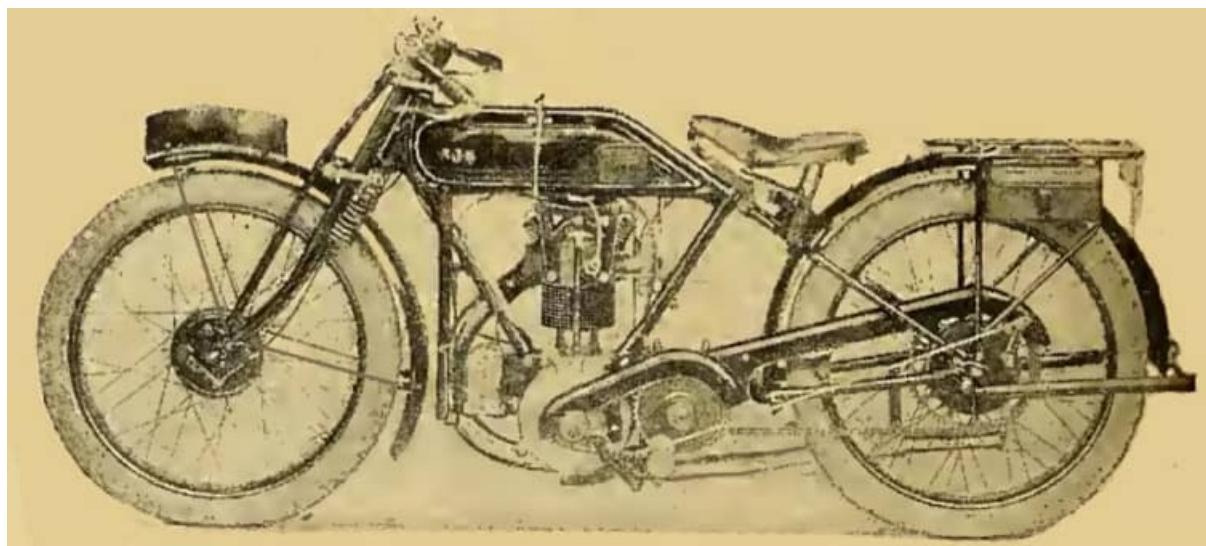
"GREAT INTEREST WILL BE CENTRED in an important addition to the Sunbeam range. This takes the form of a 70×90 mm. (345cc) machine. It will be remembered that in pre-war days the makers of the Sunbeam produced a most admirable 350cc machine, and the reintroduction of an up-to-date representative in that class will be welcomed by a large number of riders. Sunbeam lines are followed throughout in the new model, in fact, it is almost an exact replica of the 499cc Sunbeam in miniature. So perfect are the proportions that one might easily mistake the new machine for the 499cc light solo model if it were seen alone and not in company with the larger one. Not only are the lines similar, but many of the actual parts of the bigger machine are used. The gear box, for instance, is identical, parts of the timing gear are the same, and almost every detail which is altered has been modified only as regards weight."



"Very different in appearance from the pre-war 350cc Sunbeams, the new 346cc model is a slightly smaller edition of the 499cc light solo machine."

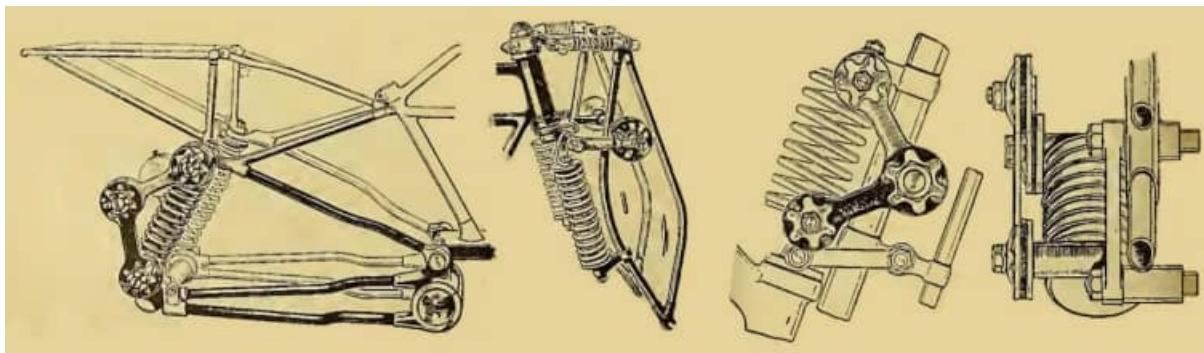
"MORE THAN ONCE CRITICISMS have been heard owing to the fact that the makers of the AJS have repeatedly won the Tourist Trophy Race with an overhead valve model which was not available on the open market. Nevertheless the manufacturers acted wisely, for they felt that

until the experimental machines had been reduced to a form in which they were safe in the hands of the public it was better not to sell them broadcast. Now, however, the latest developments render the ohv model as available as the popular side valve type...a super sports model with an engine based on the TT AJS. machine. The overhead valve mechanism will be almost exactly similar, except for the fact that somewhat longer valve guides are employed so as to reduce wear at this vital point....For the benefit of sporting riders who desire to enter speed events and hill-climbs, the rear mudguard and carrier have been made in a quickly detachable form."



"A new AJS model which is practically a replica of the successful TT machine."

"SHOCK ABSORBERS FOR SPRING FORKS: For some time now racing cars have invariably included shock absorbers in their equipment; touring cars are rapidly following suit; and the natural sequence would seem to be the application of this device to a motor cycle. It is not surprising, therefore, to learn that in the B&D stabilizer the principle has been applied to the two-wheeler and the sidecar outfit with considerable success. It consists simply of a friction shock absorber, and was evolved on the theory that a spring in itself cannot dissipate or absorb energy; it merely stores it. The reaction or rebound causes a shock just as surely as the initial jar. The stabilizer, which is patented, enables very much weaker springs to be used. These naturally give a wider range of action, but since they are damped, there is no possibility of them bottoming or being over-worked to the breaking point. The system is the result of many years' experiment on Mr AD Draper's (the inventor's) Matchless, which is fitted with his suspension front and rear. A run on this machine convinces us that his claims for greater comfort without any adverse effect on road-holding qualities are not based on theory alone. Even a brick or a three-inch pot-hole may safely be crossed without feeling any real jar, and, what is more important, without setting up a series of oscillations in the unsprung member, perhaps better described as a dither. The damping device is quite simple. It consists of floating friction disc compressed by spring washer between any two relatively moving surfaces at a pivoting point in the suspension. Pressure on the spring washer is controlled by a nut, locked by a corrugated washer, which is prevented from rotating by two flats on the main bolt."



"Front and rear portions of the Draper spring frame which makes use of frictional dampers on the same principle. (Right) B&D stabilizer fitted in place of the existing spring on a Druid pattern fork."

"WITH SOLO MOTOR CYCLES RANGING in size from 42cc to over 1,300cc, the man who prefers the single-track machine cannot complain that he has been neglected! That so many types are produced is proof of the popularity of the motor cycle and of the industry's confidence in future demand. Compared with any other form of travel, the most extravagant of solo motor cycles is so remarkably economical that there should never be any diminution in the annual demand for these machines. Further, thousands of schoolboy sonly await the day when they will attain the age demanded by the law before they join the ranks of motorcyclists. Understanding parent appreciate the real value of the modern motor cycle from both an educative and health-giving point of view. While the sidecar outfit may ultimately be threatened by the light car, and the small car itself by the large, cheap American car, there is nothing, as yet to replace the solo motor cycle. Not only is this so, but the pleasurable sensation of travelling on a self-propelled two-wheeler is quite unique in the world of wheels or wings."

"UNDER ACU OBSERVATION A STANDARD stock McKenzie miniature has accomplished a run from Land's End to John o' Groats. The run is reported to have been highly successful. All hills except two in Scotland were climbed, and the rider finished in fresh condition, the only replacement during the whole journey being a sparking plug, which failed on Berriedale Hill. There were no tyre troubles, despite the bad condition of the roads."

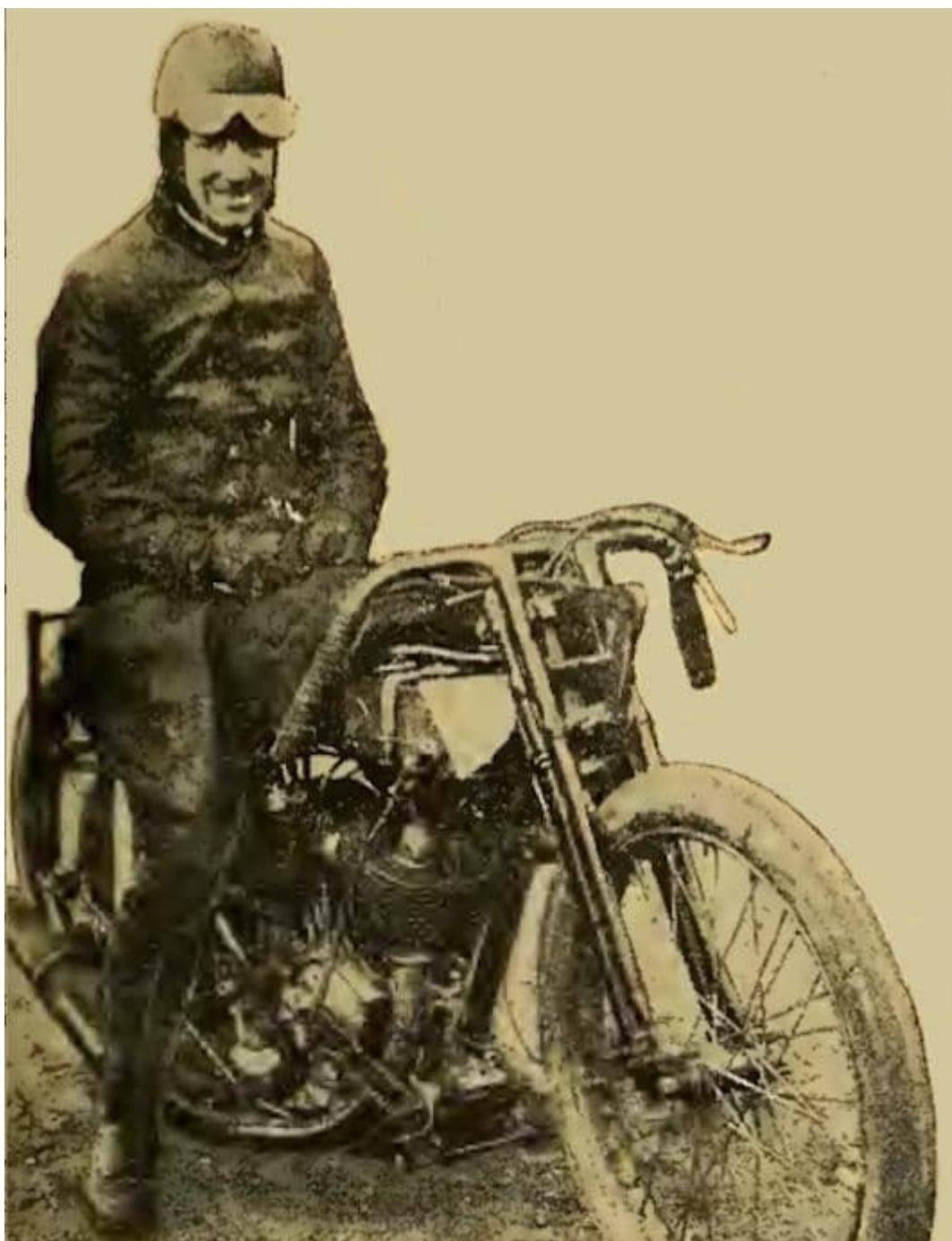


"From end

to end. GA Cade and the little 169cc McKenzie, on which he recently accomplished the run from John o' Groats to Lands End at an average speed of 18mph."

"AT LAST A MOTOR CYCLE HAS LAPPED Brooklands at over 100mph. On Friday of last week H Le Vack enhanced his reputation as a leading British speedman by covering the flying five miles in 2hr 59min 48sec, which is officially recorded as 100.29mph. Le Vack's mount was a Zenith fitted with a JAP engine of 988cc and was the same machine with which he secured the 1,000cc championship on the previous Saturday. This is the first occasion on which a British motor cycle

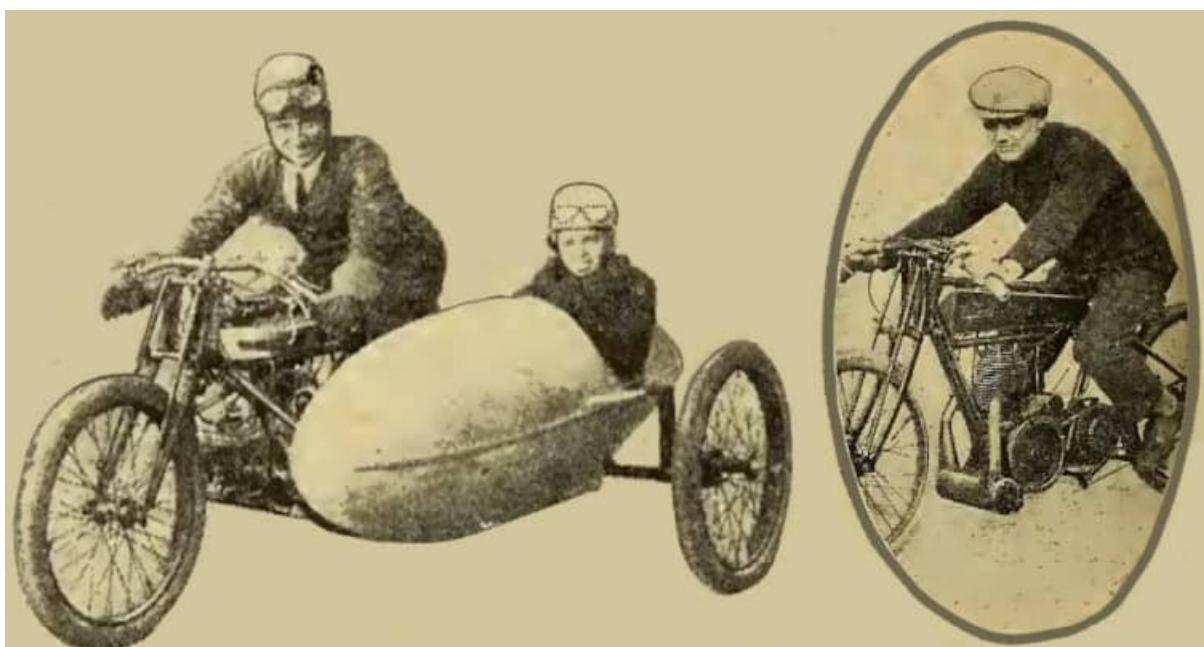
has established a record at over 100mph, and the first time any motor cycle has lapped Brooklands at a figure over the century mark.” [The British Motorcycle Racing Club recognised this achievement with the award of the first ever Brooklands Gold Star. From then on a motorcyclist who averaged 100mph or more for a lap of Brooklands was awarded a blue enamelled star imprinted with ‘100’ to hang as a medal under his membership badge.—Ed] “Le Vack was riding on the 50ft line, while his speed was calculated on the 10ft line, which means that his actual speed was about 102mph. Further, the weather was far from favourable, as a drizzling rain was falling. Added interest lies in the fact that no ‘dope’ was used, Le Vack’s fuel being a



“H Le Vack

and his 998cc Zenith-JAP, on which he attained over 100mph for five miles.”

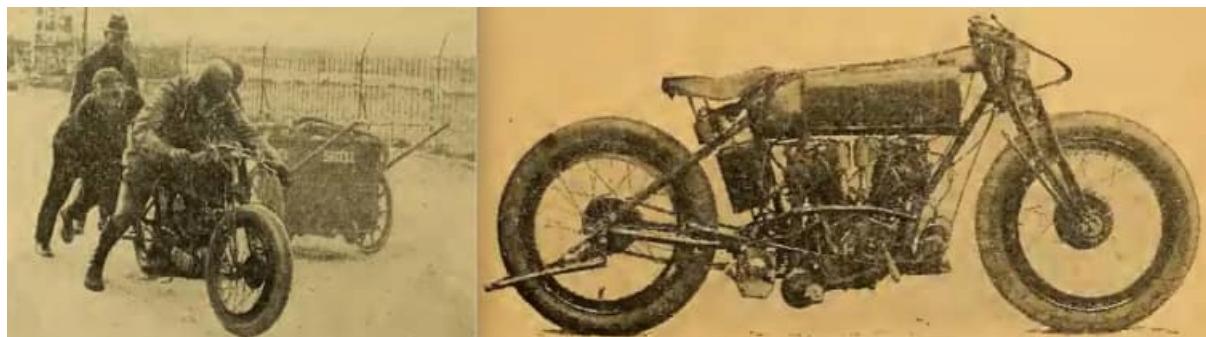
half-and-half mixture of BP petrol and Anglo benzole. When DH Davidson on a 998cc Harley-Davidson attained the speed of 100mph in April, 1921, the whole motor cycle world was surprised that what had hitherto been considered impossible had been accomplished. Then Le Vack on a 998cc Indian raised this to 107.55mph. The fact that the first motor cycle to accomplish 100mph in this country was of American manufacture was a source of dissatisfaction among motor cyclists in general, for, as much as they may admire the American machines so well known in this country, they would naturally have preferred that the honour should have been won by a home production...Questioned afterwards as to what it felt like to lap at such a pace (which meant that the machine must have been doing fully 108mph down the railway straight), Le Vack indicated that it was not the easiest thing in the world to hold the machine on a course. The surface of the track in places does not resemble a



"CG Pullin and his various racing Douglas machines figure repeatedly in the record lists. His latest achievement, with the 496cc outfit is the breaking of international 500cc mile and kilometre sidecar records at 75.74 and 78.34mph respectively. (Right) RN Judd (249cc Velocette) proves from time to time that the two-stroke is capable of beating four-stroke times. 58.83mph. (standing kilometre) and 62.91mph (standing mile) are his latest figures."

billiard table, particularly behind the aeroplane sheds, where a series of bumps set the machine bouncing alarmingly. Down the railway straight the machine more or less steered itself, due in no small manner to the device for tightening the steering head at will which Le Vack has fitted. This eliminates the tendency for the front wheel to wobble when crossing inequalities in the track. (It is, of course, impracticable to have a permanently tight head, but the device makes it possible to regulate the degree of stiffness by a touch of the finger while the machine is in motion.) Along the railway straight, in fact, Le Vack was able to remove one hand from the bars to alter the carburettor adjustment...Passing under the bridge, Le Vack was within 20ft of the top of the banking, and several hardened Brooklands habitués who watched him at this place said that the sight gave them 'quite a turn'. However, success crowned the JAP exponent's efforts, and no one will grudge him his reward, for, together with his faithful mechanic Moran, he has worked early and late on his beloved engines...there were other activities at Brooklands on Friday last, not the least important being RN Judd's (249cc Velocette) successful attack on the standing start kilometre and mile British records. Judd's new figures are: standing kilometre,

58.3mph; standing mile. 62.91mph...Cyril Pullin's attacks were on the international mean speed records. With a 350cc Douglas he established a mean standing kilometre record at 56.43mph and a mean standing mile record at 62.53mph. With a 496cc Douglas and sidecar Pullin's speeds were: Mean flying kilometre 78.63mph; mean flying mile, 78.66mph.



"During the middle of last week RE Dicker (pictured) and JH Mathers, riding a 998cc Rudge, carried out a prolonged speed test. The object was to complete three eight-hour periods of riding at the highest speed the machine would maintain. Throughout the three days involved the machine was under official observation. The total distance covered was 1,481 miles 459 yards, an average speed of 61.72mph, which, if recognised, just beats the existing Norton 'double-12' figures."

"I KNOW I AM BUYING TROUBLE," Ixion proclaimed, "but nathless I proceed. I believe that if our southern riders had the misfortune to reside in the manufacturing districts of Lancashire or Yorkshire they would never motor at all until they could afford a 40hp, six-cylinder car. Why, even with the benefits of their southern residence most of them take jolly good care to get home before it is dark, and lay up their machines for most of the winter. Up north I know innumerable grey beavers who flounder over pot-holed setts and petrified kidneys for most of their summer mileage, and maintain the good work merrily right through their bitter winter. And when weekends arrive, instead of sitting at home or in a bar by a glowing fire and applying vaseline to the callosities on their anatomies, they go off and look for half-frozen water splashes or the kind of hill that resembles a well-treacled ladder. My advice to posterity is as follows: Be born right up north of good north-country stock. Stay there till you've imbibed a 'reet' northern spirit and then come south and enjoy the rest of your natural life."

"PROPERLY PRACTISED, PILLION RIDING is not necessarily dangerous. By itself, the mere fact of there being a passenger behind the driver is not sufficient to warrant the condemnation of the practice. Many a motor cyclist will testify to having regularly carried a pillion passenger without the slightest mishap, and will aver that the extra weight over the back wheel in no way detracts from his control of the machine. Usually, however, one will hear it emphasised that there is a right and a wrong way of carrying a passenger, and, of the two, it is generally agreed that the side-saddle attitude does not give the driver such a comforting sense of security as the astride position. The reason is obvious: the side-saddle position does not afford the passenger any support for the upper part of the body, and in a sudden swerve, or when rounding a corner, the passenger may lurch, and considerably embarrass the driver. It is only natural that the majority of lady passengers should prefer the side-saddle attitude. Motor cyclist will, however, be well advised to attempt methods of peaceful persuasion in an endeavour to bring about the adoption of the astride position when a really long run is under consideration. If a passenger is to be carried with any frequency a proper pillion seat attachment for the carrier is a sine qua non. Such a fitment should incorporate a handrail and footrests if the prospective passenger

firmly refuses to sit astride. A loose cushion on the carrier should be eschewed, save, perhaps, as a purely temporary expedient, for it may shift its position with, possibly, disastrous results. It is as well, also, to warn the passenger that, if the back number plate be obscured, he or she may held liable for 'aiding and abetting' within the meaning of the law should some constable chance to observe the 'crime'. The privilege of being aisle to carry a passenger on a solo machine is valuable, and one hopes that motor cyclists generally, by observing a little common sense in the matter of seating the passenger securely, and by not deliberately taking risks in attempting to negotiate impossible surfaces, will counter the prejudice against pillion riding which exists in the public mind to-day. One might, perhaps, label the following points as the golden rules: 1. Seat the passenger astride. 2. Fit a proper pillion attachment, with footrests, securely to the carrier. 3. Keep off tramlines and take no risks in traffic."



"No motor cyclist should take a pillion passenger without proper provision for her comfort. (Right) Although very popular, the side-saddle does not give the driver such a sense of security as the astride position."

DECades before full fairings appeared, Ixion was able to report: "Mr Easting's original solo screen appeared, I think, in the Isle of Man in the dimensions of a geisha's fan. His latest edition just to hand is a far more lordly fitting. The celluloid panel measures about 21in high x 16in wide, is well framed, and carried in two brackets easily fixed to the steering bar if any gaps are available between the existing decorations of that misnamed and overloaded article. The new screen weighs no more than 4lb and really gives very welcome protection. Quite a useful waterproof apron, weighing 1½lb, may be fixed to the lower rung of the screen, so as to protect the rider's knees and tummy. With these Eastingg fitments and a pair of John Bull muffs, motor cycling in Arctic weather is really almost cosy."

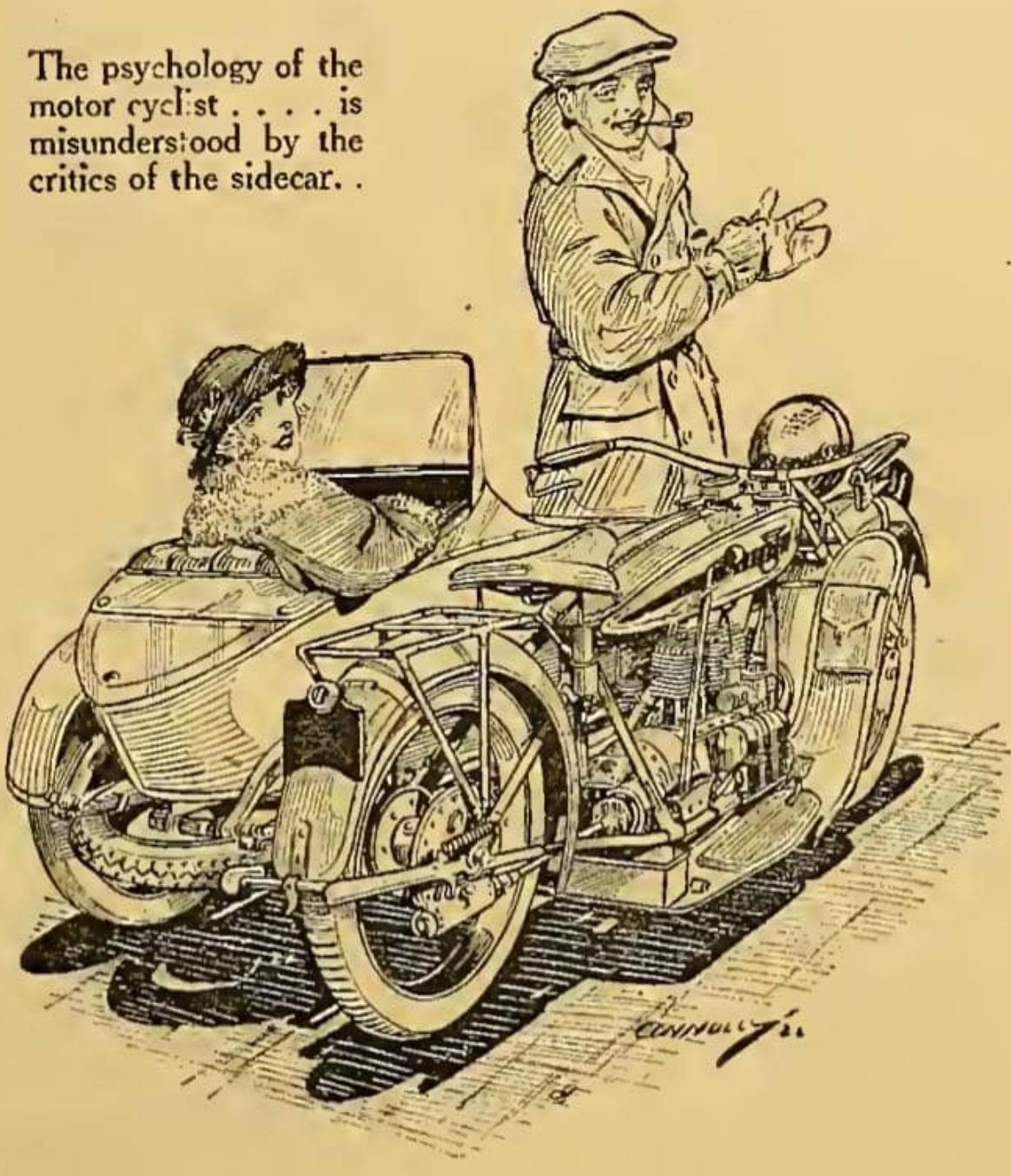
"PHUT-PHUT-PHUT'=SINGLE-CYLINDER four-stroke. 'Phutta-phutta-phutta'=V-twin four-stroke. 'B-r-r-r-r-r-r-r'=single-cylinder two-stroke.—A child's guide to motor cycles."

“SOMEBODY HAS BEEN COMPLAINING that life nowadays lacks the excitement and thrills of long ago. We suggest that they try a 30-mile night run on a motor cycle over strange roads in a thick fog.”

“NEW USE FOR OFFICIAL BOOTS: An exhaust pipe kicking campaign is the latest form of police activity to be practised. Edmonton is the danger area, and motor cyclists passing through are advised to be sure that there is no slackness in their silencer joints, etc.”

“THE MODERN MOTOR CYCLIST’S GARAGE is rapidly becoming like a beauty parlour with the varied assortment of pastes and creams in tins, jars, and tubes now marketed for jointing flanges, smearing bolt threads, stopping leaks, cleaning aluminium, making belts grip, getting tar and stains off, cleaning the hands (dry), cleaning the hands (wet), gingering up the petrol, oiling up the petrol, filling the inner tubes, keeping wet off windscreens, polishing enamel, preserving hoods, etc.”

The psychology of the
motor cyclist . . . is
misunderstood by the
critics of the sidecar. .



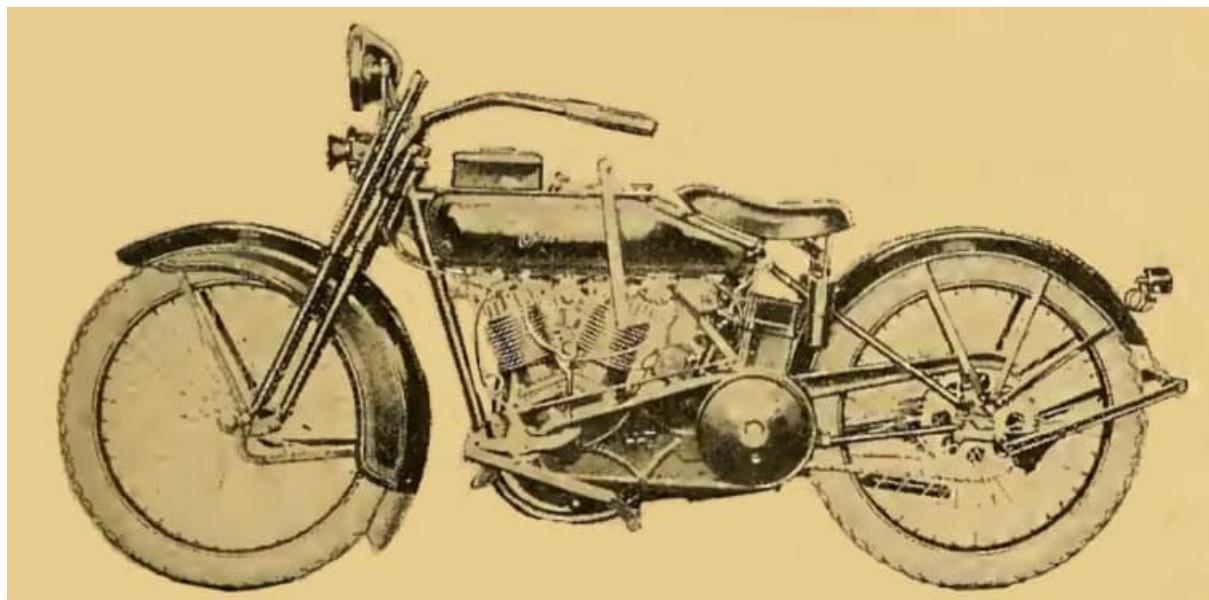
The Blue 'Un published a thoughtful article on buyers' motive for choosing sidecar outfits or light cars. The argument has no relevance to modern motor cycling, but isn't the illustration wonderful?

"UNDoubtedly THE MUST ATTRACTIVE models in next year's programme of Dot Motors are of the sports type. One is equipped, with the 348cc JAP engine, and has all-chain drive through a three-speed Albion gear box...No kick-starter is fitted as standard, but a clutch is incorporated. Both brakes are of the internal expanding variety...a 249cc JAP engine model may be had and other alternative engines are the 349cc ohv Blackburne and 349cc Bradshaw engine. Next comes the big twin sports model, with 976cc JAP engine and Sturmey gears. The general specification is similar to that of the lightweight model, with, of course, 28x3in tyres and other fittings in proportion. Large silencers are a feature of these sports models. Touring Dot

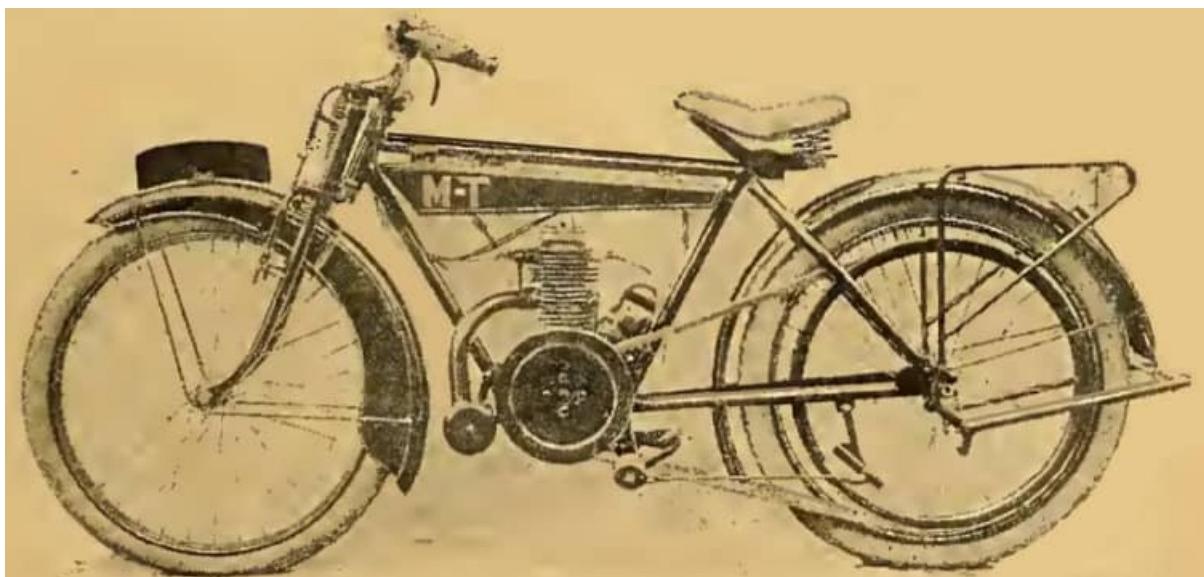
machines embodying engines of the similar capacities are also to be produced...The touring lightweight has the 292cc JAP engine with three-speed Albion gear and chain-cum-belt drive."



"Chain-drive, internal expanding brakes at front and rear and a very large silencer have been incorporated in the 350cc Dot-JAP. (Right) Designed for hill-climb and speed trial supporters, the sports model 976cc Dot."



"America is ignoring the arbitrary 1,000cc limit of British productions. The latest Harley-Davidson has a 1,208cc capacity. The [ignition] switch is now actuated by means of, a key serving to safeguard the machine against theft, and should the rider omit to switch off there is a buzzer inside which tells him of his neglect." The JD was the first of many Harley 74s.



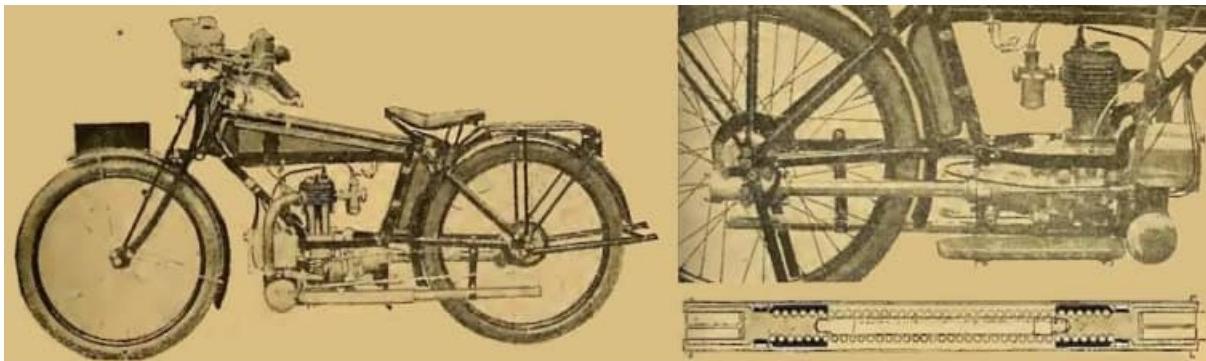
"The All-Black Baby model Metro-Tyler in its single-gear form. It is available also with two-speed gear box; fitted with a 269cc two-stroke engine it weighs only 120lb. All Metro-Tyler machines will be supplied as standard with Jackson's Impervo in the inner tubes and a positive guarantee against punctures for 4,000 miles."



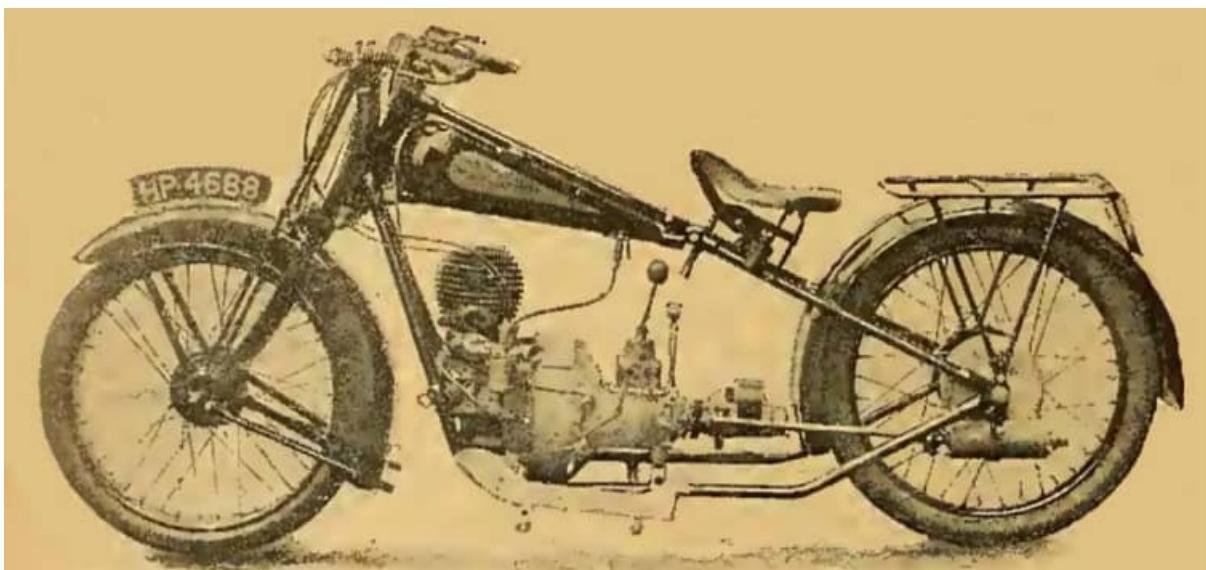
A 133cc two-stroke engine, with tank, flywheel magneto and chain transmission is mounted on a heavy spring fork to form the Cykelaid unit. The bicycle part may be any standard roadster; in this example 26x2in wheels are fitted. Speeds up to 30mph are claimed. (Right) One of the lightest lightweights on the market, the Clement machine with 43cc engine. A consumption of 350mpg is guaranteed. It is claimed that 1 in 10 gradients can be climbed without pedalling."

"A MEDIUM-WEIGHT MOTOR CYCLE of 317cc, having a unit engine clutch and gear box, a propeller shaft and worm drive, has been designed by two English residents in Paris, Messrs Claxton and Beatty, and, it is declared, will be put on the market shortly in both France and England. The engine is not without interest. It is a single cylinder of 70x76mm bore and stroke, with valves on one side...the valve stems are enclosed by telescopic sleeves and there is a particularly neat dust-proof aluminium housing over the magneto, which is carried on a bracket in front of the engine...The engine is mounted on an aluminium crank case, which forms a unit with the clutch housing and the gear box. An 18-plate disc clutch is used, and immediately behind it is the two-speed gear box...From the gear box to the underslung worm on the rear wheel hub there is a propeller shaft with ball ends, one of which is received in a socket in the driving and the other in a similar socket in the driven member. The shaft, alone, cannot transmit power, but it is surrounded by a closely wound circular section coil spring, the two ends of which are screwed into and rigidly attached to the driving and the driven members. There is

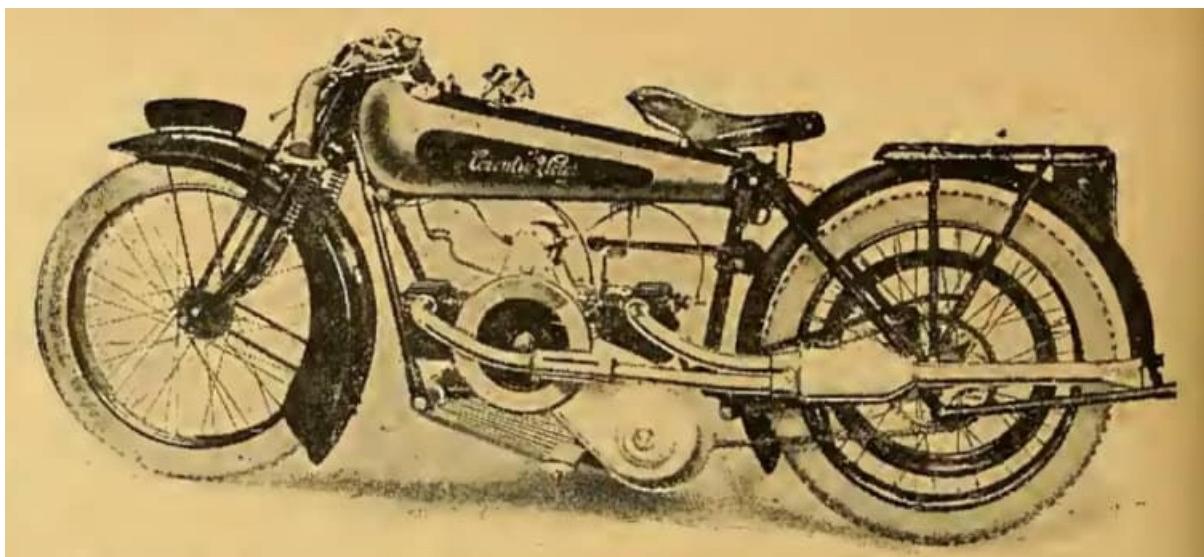
sufficient flexibility in the coil spring to take up all irregularities of the drive, as when running slowly or when starting away, and yet a perfectly rigid drive is secured when the engine is developing its full power...A drum on the rear wheel hub carries an internal and an external brake...The weight of the machine, fitted with 26x2in tyres, is just a little over 150lb. That a 317cc machine with shaft transmission should even get under the 200lb limit proves that this form of drive need not necessarily be weighty."



"To the many advocates of shaft this French production will appeal. The engine is a 317cc four-stroke. (Right) Shaft and worm-drive, possessing novel features, is used in the Claxton and Beatty motor cycle, a nicely designed production of two Britishers in Paris. Instead of a shaft proper the transmission is taken through a long, stiff coil spring, thus absorbing engine shocks and providing a simple universal joint."

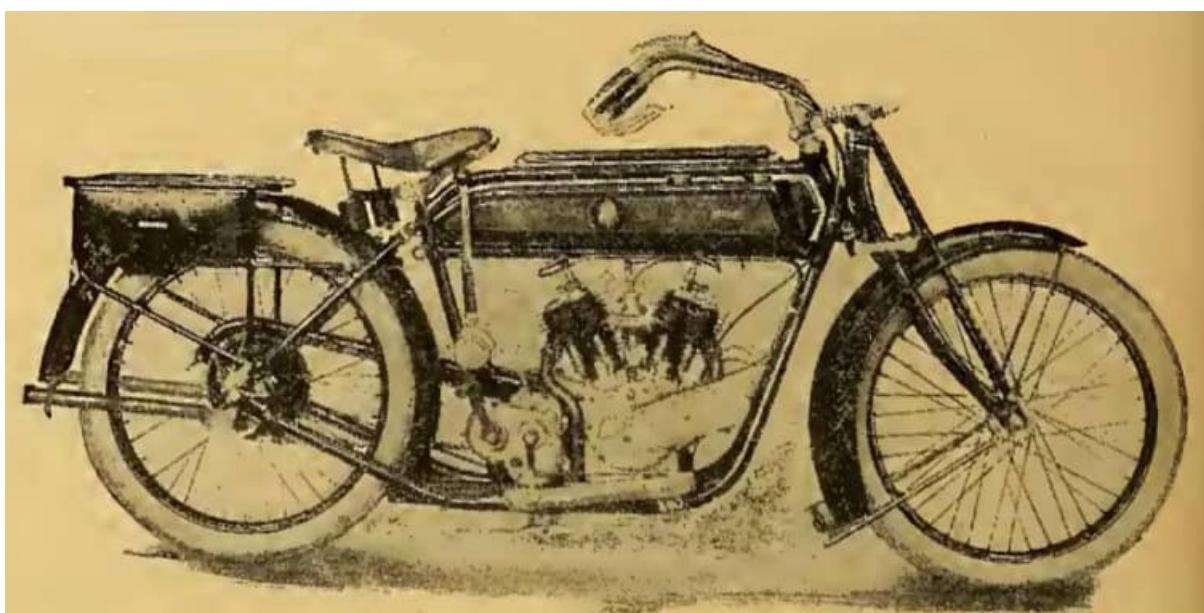


"Notable if only as the sole British shaft-driven motor cycle, the G.S.D. featured a transversely set engine in one unit with a four-speed gear box and a duplex frame. A 350cc White and Poppe two-stroke engine is normally used, but an additional model [is available] with a V-twin 976cc JAP unit...expanding brakes on front and rear wheels are features common to both models."

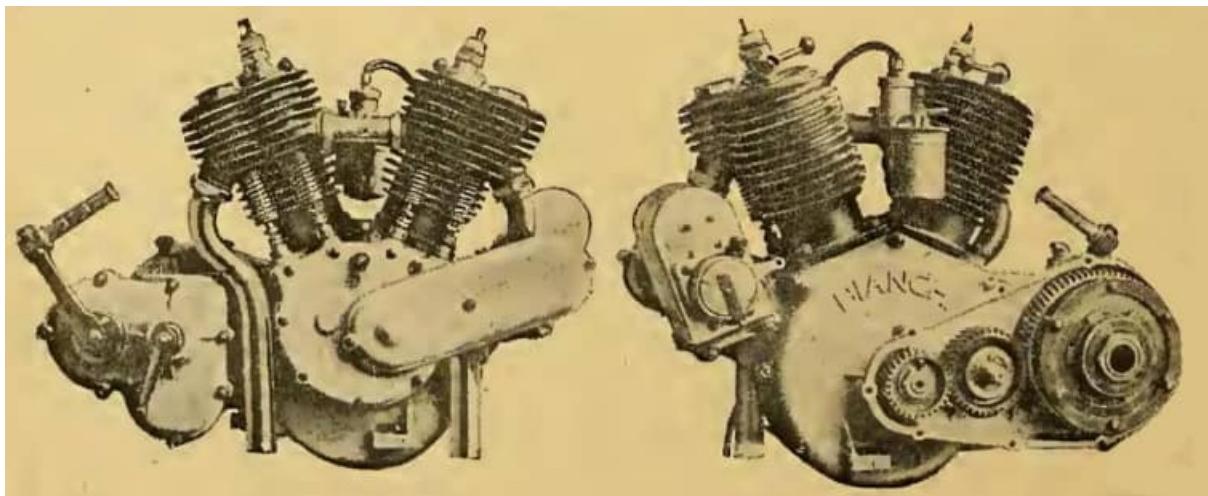


"A most striking model, the 'Super Six', will bear the Coventry Victor name in 1923. To all appearances the engine is similar to the standard flat-twin models, but it has a somewhat higher compression ratio than the standard, while the valve gear has been modified for speed purposes...Transmission is by chain throughout, a Sturmey-Archer three-speed gear box with shock absorber, clutch, and kick-starter, being attached to the bottom bracket. This luxurious speed machine can be obtained with an 80mph certificate at a slight extra charge."

"NO CONTINENTAL COUNTRY HAS MADE greater progress in motor cycle production than Italy, and one of the finest examples of Italian design is the 600cc twin Bianchi, the external finish of which cannot fail to attract admiration. Gear box and engine form a single unit, and the cylinder dimensions are 70x78mm (600cc). Semi-automatic lubrication is provided, and the primary drive to the gear shaft is by three skew gears and a metal plate clutch, all running in oil. A single-cylinder model, in which a Garelli pattern three-speed gear is incorporated, is another production of this firm. The engine is of 498cc capacity, having a bore and stroke of 75x112mm. Bianchi Motors, 26, St James's Street, London, SW1, are responsible for the machine in this country."



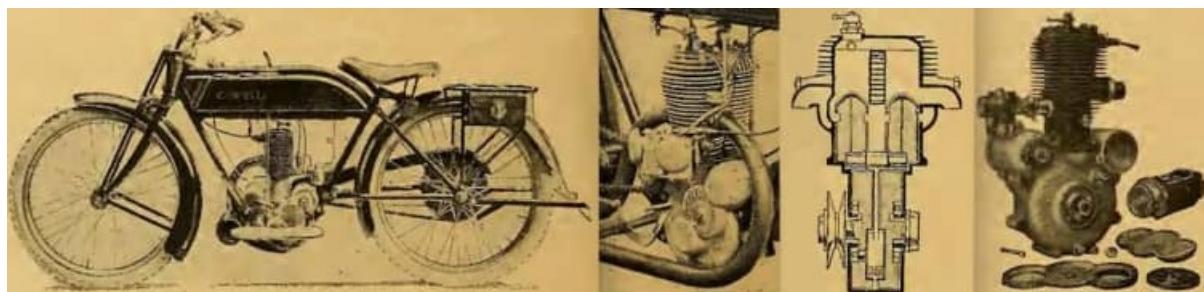
"This promising Bianchi was first favourably commented on at the Paris Show of 1921."



Unit construction is a feature of which the Italians are exceptionally fond in their motor cycle engine design. The Bianchi engine, which hails from Turin, the home of Italy's best automobile productions, is a fine example of this practice. Primary reduction to the countershaft is through enclosed spiral gear wheels. Excellent finish and workmanship has made Italian productions world famous.

"THOUGH DESCRIBED IN *THE MOTOR CYCLE* immediately after its success in the 350cc class of the French Grand Prix, a further reference to the unconventional Garelli two-stroke cannot fail to be of interest, especially as the makers are now represented in England. Few examples of departures from accepted practise, such as the Garelli is, have attained success at the very outset of their careers, but with this machine success was obtained not only in the small field at Strasbourg but in a much larger and more dangerous one of 39 riders on the Monza track in the Gran Premio delle Nazioni. It must be mentioned here that the engine design is not actually novel and owed its origin to an English inventor, but the Cavaliere Garelli was the first to adapt the principle to a motor cycle engine. Briefly the Garelli engine (50x89mm) has two cylinders with clear air space between, two pistons and a common combustion chamber. Of the two pistons which are of chrome nickel steel the right-hand one has a flat top and the left-hand one a domed top, which acts as a deflector and prevents turbulence. These pistons, which are, of necessity, very long, are connected at their base by a single gudgeon pin in the centre of which works the small end of the single connecting rod. On the mixture supplied by a one-lever Zenith carburetter (fitted with additional extra air inlet) being drawn into the crank case and compressed, the transfer port, which is inside the cylinder (actually in the dividing wall between the two) is uncovered by the left-hand piston, fills the left-hand cylinder and the combustion chamber and helps to expel the residue of burnt gases in the right-hand cylinder as the exhaust port is still uncovered; the pistons then rise and compress the charge which is fired by the plug in the left-hand cylinder, but as there is a common combustion chamber both pistons receive the explosion pressure. Following the tendencies of modern Italian design unit construction is followed, but otherwise the lower part of the engine follows standard two-stroke practice in the main, but there are two inside flywheels, one of which incorporates a most ingenious transmission shock absorber...the Mea-Garelli magneto...is entirely enclosed in the unit, but is easily detachable therefrom. The result of this design is that the whole of the mechanism is enclosed and the only visible moving part is the final transmission chain...All controls are entirely enclosed, no naked wires being visible, while the change speed lever acts directly on the gear box, there being no intermediate toggles or rods...Now that the Garelli has arrived in

England its road performances will be as eagerly awaited as its victories in races were acclaimed in the most important Continental events during the past season."



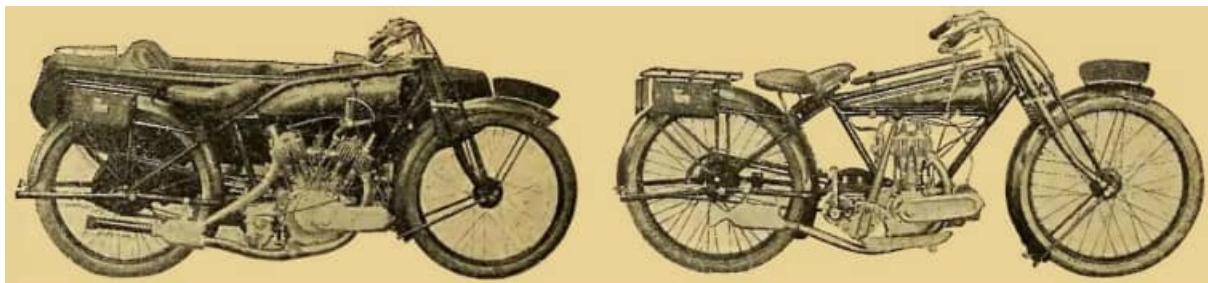
From left: "Marketed edition of the 349cc Garelli. Grand Prix pattern of the Garelli with twin exhaust pipes. Diagram showing the double piston and cylinder. The flywheels are carried on ball-bearings mounted on fixed bosses to the crank case. A cylindrical gear-driven magneto is housed in the crank case."

"BY THE ADDITION OF TWO extreme models to the Coventry Eagle range, there is a 1923 machine of this make of practically every capacity known. The newcomers are a 147cc two-stroke miniature and a sporting big twin with the 976cc super sports JAP engine...As might have been expected from the makers of motor cycles with the elegant appearance of the 1922 Coventry Eagles, the new big twin is particularly handsome and symmetrical. Furthermore, the way in which the engine is housed is exceptionally compact; a 5in ground clearance is allowed, although the saddle height is only 27in.



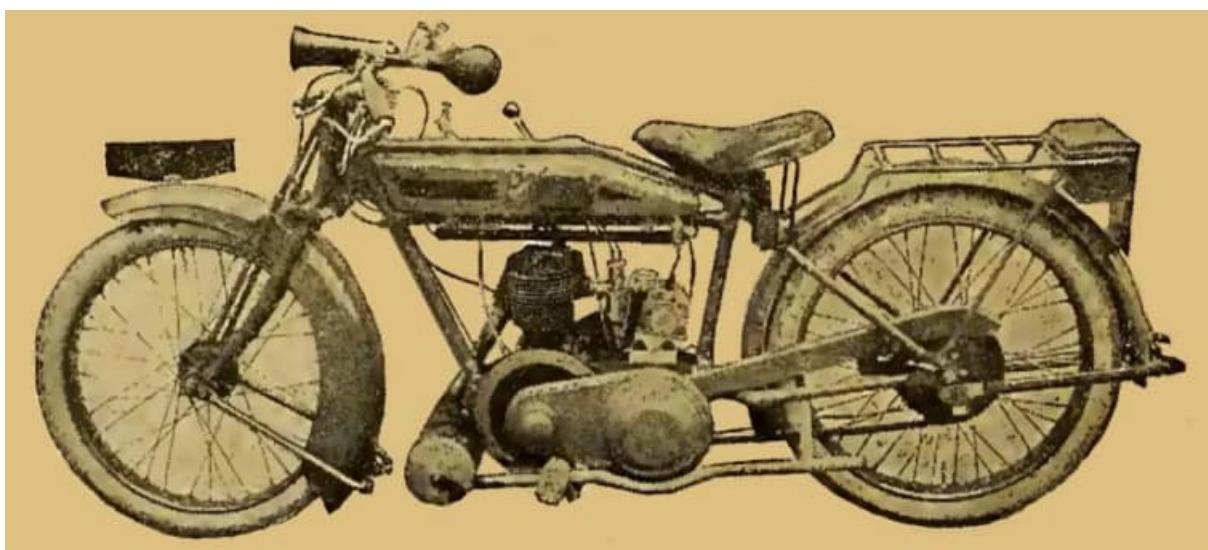
"Few miniatures have more businesslike lines than the 147cc Coventry Eagle. (Right) As a fast touring machine, the new 976cc twin suggests unlimited possibilities."

"AFTER MANY YEARS' HONOURABLE EXISTENCE as a sturdy and reliable but not particularly handsome motor cycle, the Bradbury, in all its forms, has undergone a veritable transformation for next year. It now compares favourably in the matter of appearance with anything else on the market, and recent records at Brooklands prove that sheer slogging capabilities are not its only commendable attribute. Three main models are offered—all side-valve four-strokes; a 350cc single; a 554cc single; and a 749cc twin. In each case the engine is of Bradbury design and manufacture; in fact, except the gear box of the 350cc model (a Moss three-speed), the whole machines are produced in the one factory. Each model is available as a sidecar outfit, but the big twin machine becomes a particularly attractive solo mount when turned out to a sports specification. A new frame of graceful design, well-curved exhaust pipes terminating in an aluminium silencer at the rear, and footrests instead of footboards, combine to make this model attractive to the most fastidious speed man. Internal expanding brakes on both wheels is a commendable feature of all the Bradburys for next year. The makers are Bradbury & Co, Wellington Works, Oldham.

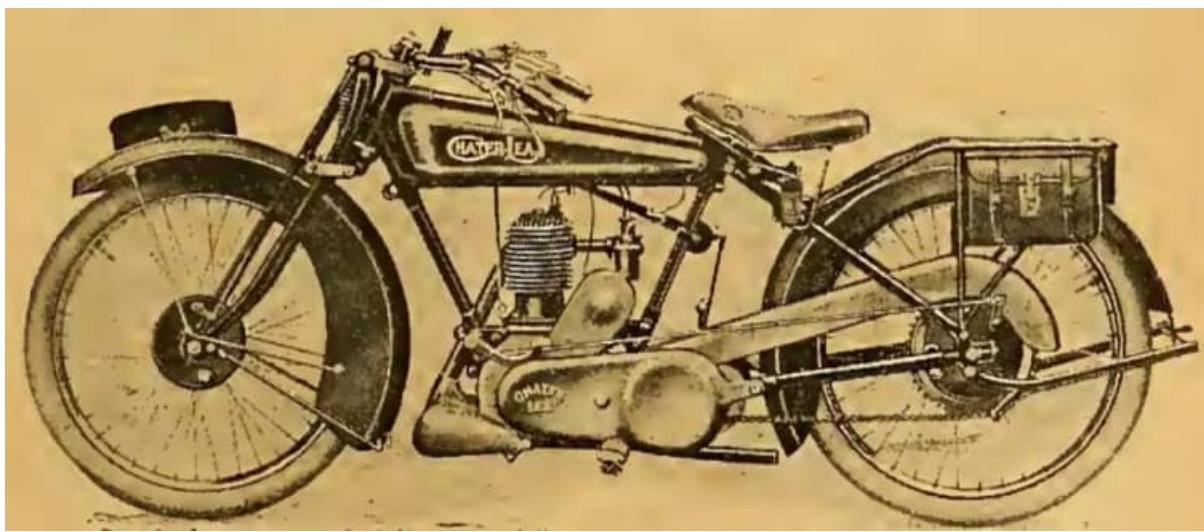


"Speedy lines are attained in the 749cc Bradbury sporting sidecar outfit. Right: Many changes, including a new frame, have been made in the smallest model."

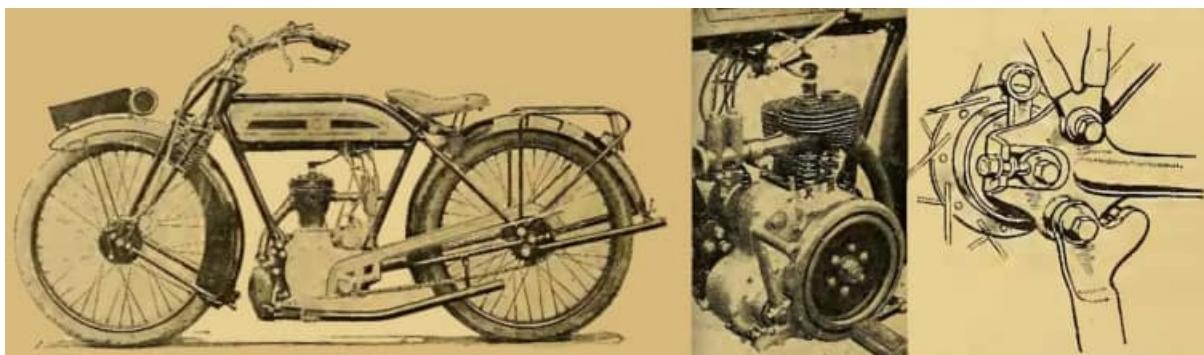
"MOST OF THE BIG SIDECAR SPECIALISTS are turning towards the light solo machine as an addition to their range for the 1923 market. In this class the Matchless concern must now be included, after long absence from the smaller solo field. The new model is engined by a 349cc Blackburne side valve unit. A Sturmey-Archer three-speed gear box, including clutch and kick starter, is fitted, and a drawbolt for the purpose of front chain adjustment is provided. There should be no doubt about the silence of the Matchless single; the silencer is as big as that on the sidecar outfit. And in this connection it must be pointed out that engine, gear box and magneto are assembled in a special cradle, which can be handled as complete unit. Points of convenience have been carefully studied, kneegrips being fitted as a standard, and an excellent all-metal tool box situated on the rear of the carrier and fitting practically flush with the top thereof. One new twin cylinder model will be introduced, to be known as the super-sports model J, equipped with a 976cc super-sports JAP engine, Sturmey-Archer three-speed gear box, clutch and kick starter."



"There should be no doubt about the silence of the Matchless single; the silencer is as big as that on the sidecar outfit."

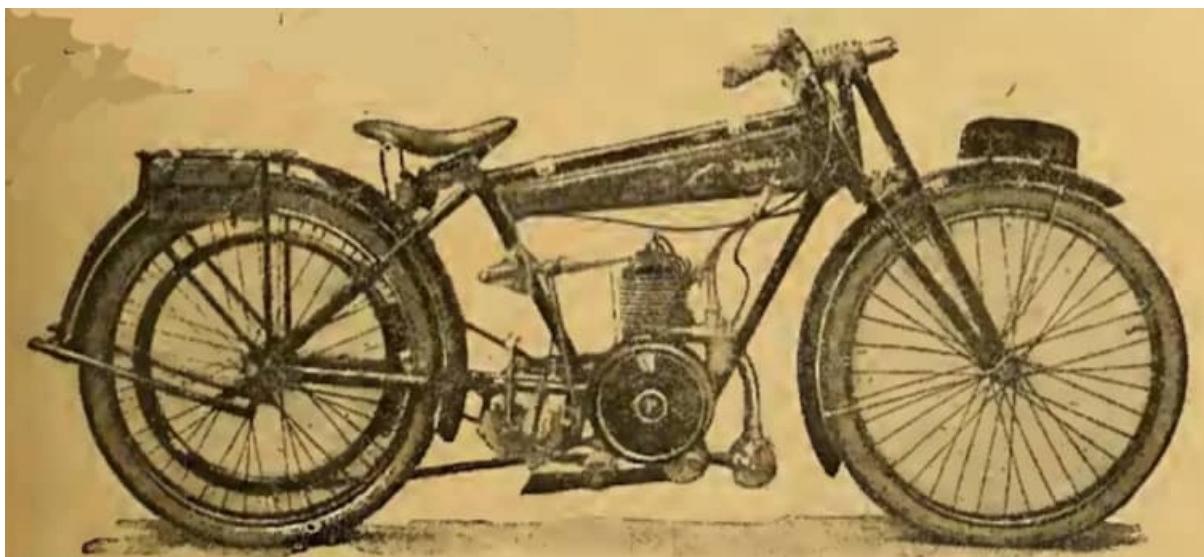


"To those who are looking for a useful double-purpose mount the 545cc single-cylinder Chater-Lea will undoubtedly appeal. Its power unit is an engine made by the firm, and it is provided with all-chain transmission, a transmission shock absorber, and a Sturmey gear box incorporating a kick-starter, with the clutch controlled from the handle-bars. Both wheels are interchangeable and detachable, while internal expanding brakes are fitted back and front."



Having won acclaim with the ohv Ricardo Triumph surprised many enthusiasts by launching a sidevalve 350 featuring unit construction. "Compactness and a short wheel-base are gained by the unit construction. Note the large cover plate giving direct access to the overhung crankshaft and big end. Combined engine and gear unit, with outside flywheel. Arrangement of the detachable wheel showing the extension to the distance piece." Every rider who has grappled with recalcitrant wheel spacers will wonder why the Triumph design didn't become ubiquitous.

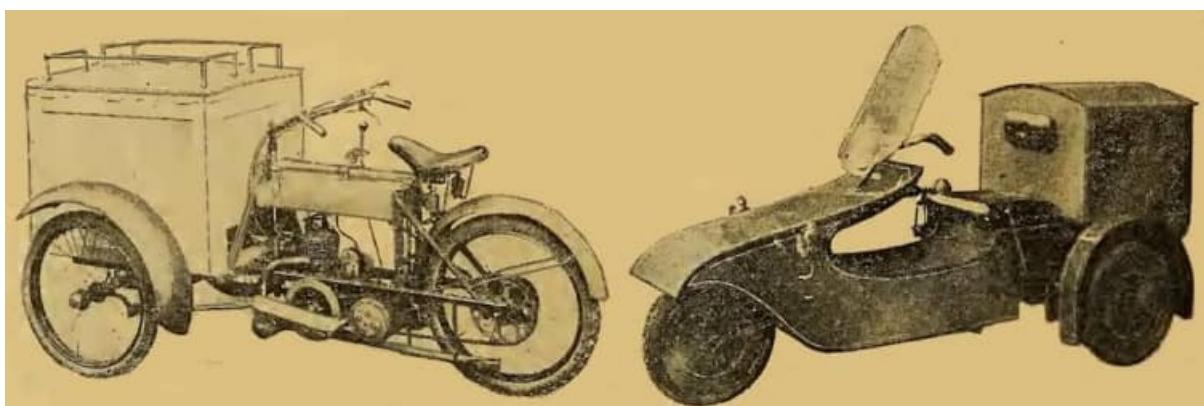
"IT COMES AS A SURPRISE to learn that the makers of the Powell are introducing a lightweight for next year. Hitherto, of course, there has only been one Powell model, a sturdy 547cc dual-purpose mount, and this will be retained with the addition of a similar machine with all-chain transmission. The lightweight is a straightforward and simple design, embodying a 247cc Villiers engine, and, in two cases, a two-speed Albion gear box, in a neat frame not unlike the larger type in general contour." The new 250 was offered as a single-speeder, a "plain" two-speeder or "with two-speed, clutch and kick-starter...Powell Bros, Cambrian Iron Works, Wrexham, is the address of the makers."



"Villiers engine and Albion gear box as fitted To the Powell lightweight."



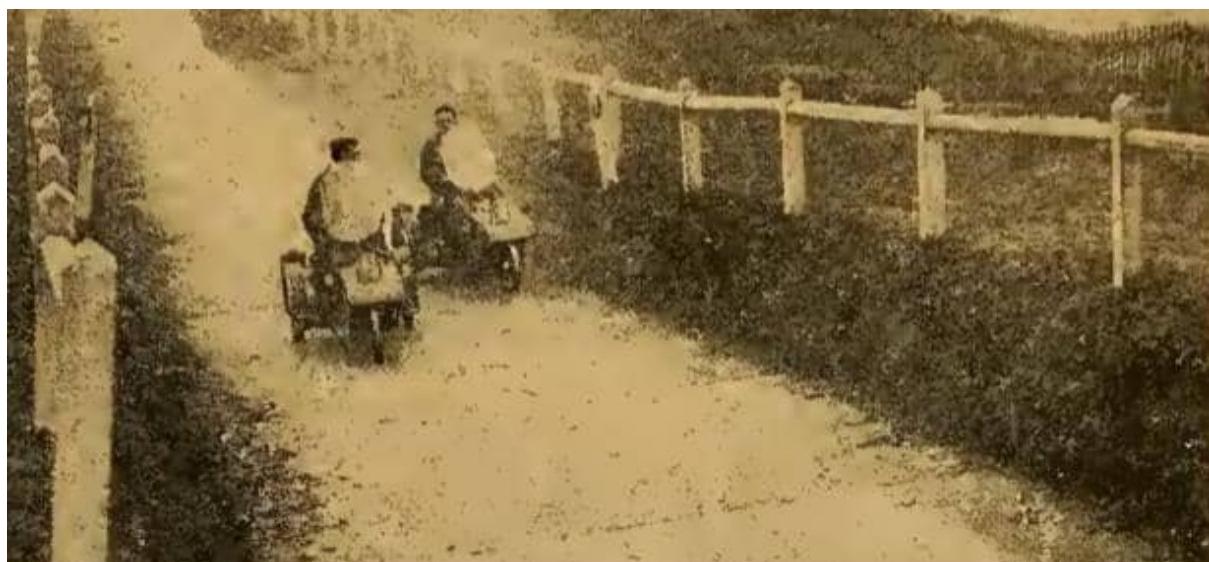
Sheffield-Henderson and Coventry Mascott both adopted the 349cc oil-cooled Bradshaw engine. The Sheffield "is particularly recommended for sidecar use"; it came with a three-speed Burman box with clutch and kickstart. The Coventry featured the same transmission with aluminium chainguards; its Sports stablemate "is notable for its silencing arrangements, which have been expressly designed for trials riding and watersplashes, the final exhaust exit being up in the neighbourhood of the rear tool bag".



"Melen tradesman's motor carrier tricycle; a 297cc Union engine is used, its carrying capacity being in the neighbourhood of 1½cwt. (Right) Tradesman's model of the unique Harper Runabout, which has remarkable capabilities."

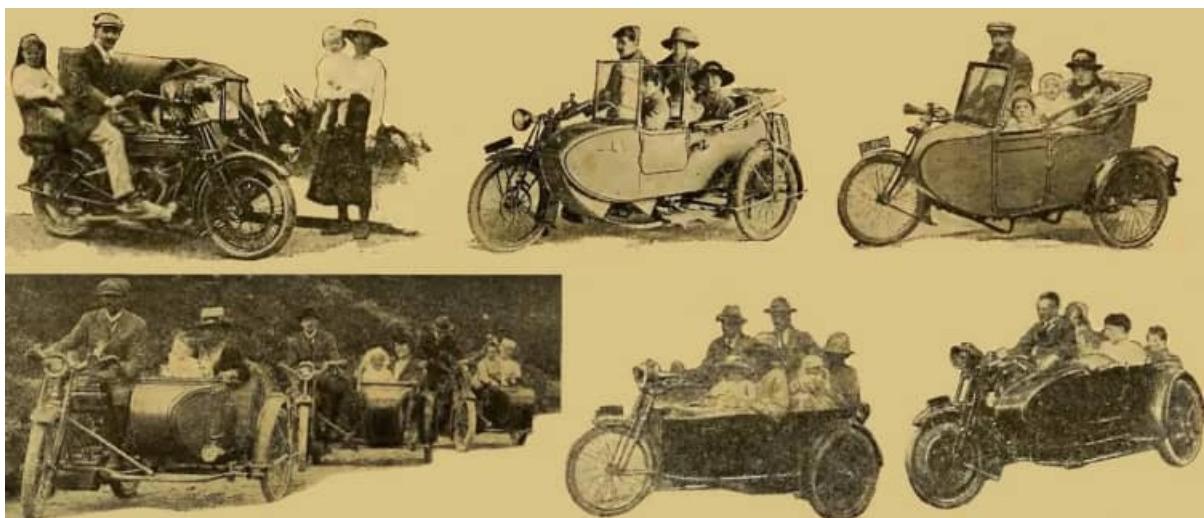
"IN THIS YEAR'S SCOTTISH SIX DAYS TRIALS, the remarkable capabilities of the little Harper Runabout were the subject of much comment. But even so, few riders of ordinary motor cycles would have credited its ability to cover over 40 miles in one hour on Brooklands track. Actually, on November 16th, RO Harper, on a standard machine in full touring order, equipped with wind-

screen, electric and acetylene lighting, spare wheel and tyre, tools, and spare tin of oil (total weight, with driver, 534lb), covered 42½ miles in the hour, under ACU observation. The fastest lap was run at the rate of 43.16mph, and the 259cc Villiers engine ran faultlessly throughout, driving the little three-wheeler at a speed not equalled by many touring motor bicycles of similar capacity. Much of the success of the Harper Runabout may be ascribed to its excellent springing and the efficiency of the transmission; the former quality in particular being invaluable, as the wheels do not bounce and spin when passing over irregularities in the road or track. After the one-hour run at speed the machine made two ascents of the test hill from a standing start, the second climb being with an extra adult passenger.”

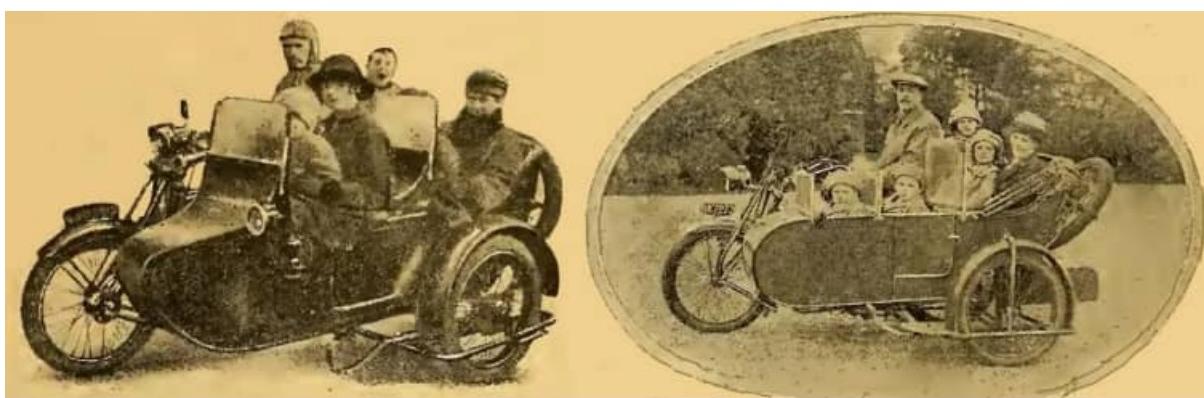


“After making nearly 16 circuits of Brooklands track in one hour (42½ miles), RO Harper (269cc Harper Runabout) made several clean ascents of the test hill with and without a passenger, two of the machines ascending the hill in company.”

“CHEAP MOTORING FOR BIG FAMILIES: How the Sidecar will Accommodate Large Parties; the Merits of Side by Side and Tandem Seated Bodywork: The first things to seek when purchasing an outfit to carry four, five, or six people are power and room in the sidecar body. A 550-600cc engine pulling a big load at good speeds will consume almost as much petrol as one of 900-1,000cc under the same conditions. Nothing is more irritating than to feel under-powered against a strong headwind; others beside men with big family sidecars will agree with this...It can be safely said that all the big modern twin engines and three-speed gear boxes will stand up to any work to which they can be subjected in reason. The same can be said of the rest of the machine if common sense be used, always remembering that sidecar connections and the frame work will receive more strain with a heavily-loaded family sidecar than one of normal size. Alignment, too, should be watched closely, otherwise the tyres will receive abnormal wear, especially the front one. Opinions differ on the type of body best suited to carry three or four persons. Some prefer

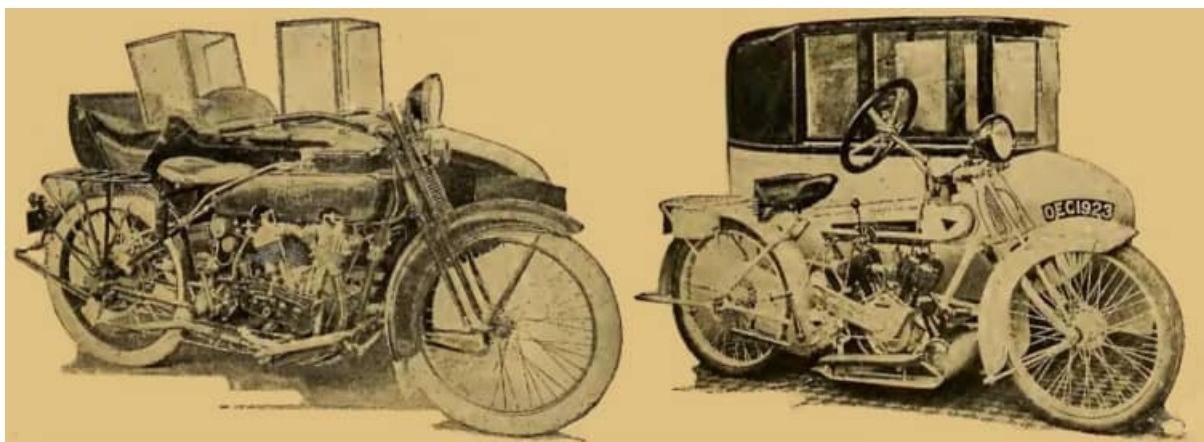


From top left: "An Enfield outfit, which usually carries a complement of six passengers. These two illustrations speak for themselves, and show graphically how easily big families are accommodated on a sidecar. Exemplifying the social spirit which appears to be more common amongst owners of sidecar outfits than with any other class of motorists, if evidence on the road is any criterion. Two families find that this Henderson outfit provides complete transport facilities. A Manchester reader and his BSA, on which he carries his wife and three children comfortably."



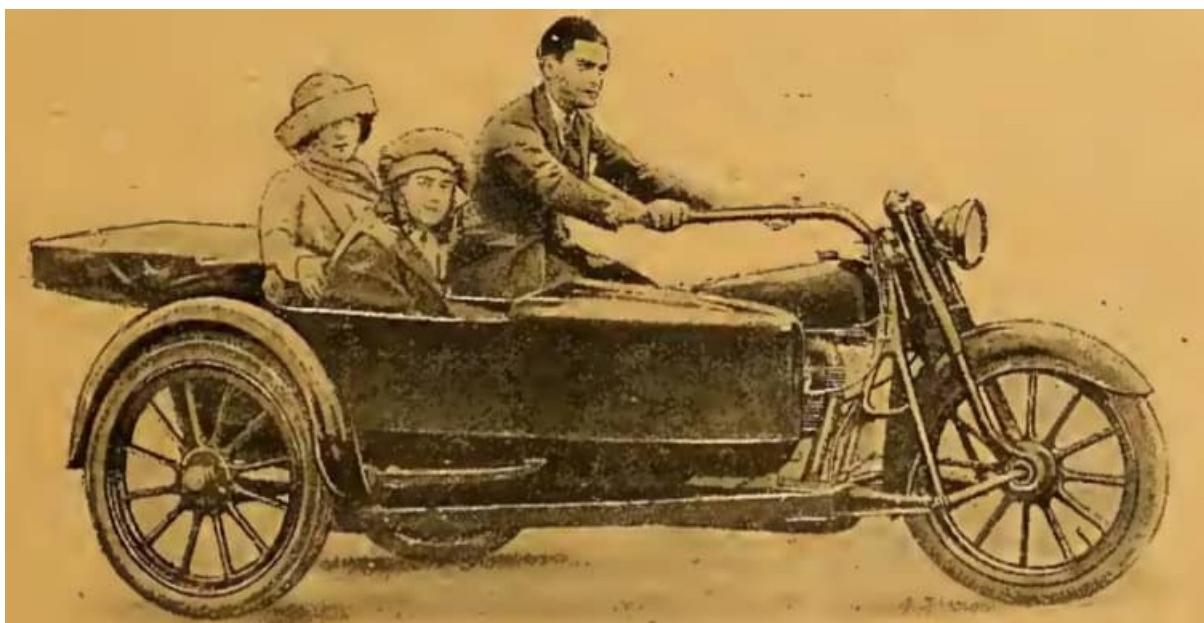
"Mr JE Sykes, of Scarborough, and his loaded AJS outfit. In spite of the weight carried the machine does its work admirably. (Right) In order to accommodate four passengers Mr W Weaver, of Southsea, has lengthened his sidecar."

the extra wide body, such as was shown by the Royal Ruby Co at Olympia last year. The majority, however, appear to prefer a tandem seater. One such outfit which we have seen is arranged with the driver's wife and youngest child occupying the back seat of the sidecar, two other children sitting side by side in the front seat, while the eldest is accommodated on the pillion. This is probably the best method of arranging such a party, and seems preferable to making use of a dickey seat or fixing a seat on the luggage grid in the manner adopted on the AJS. The latter method, however, seems to be preferred by the



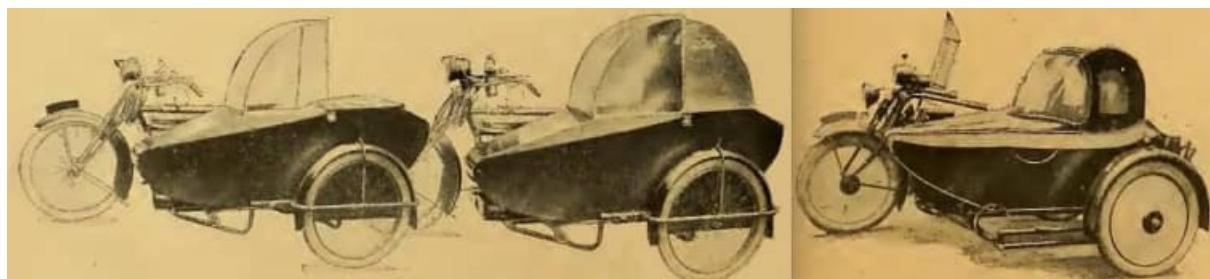
"The 1,208cc Harley-Davidson with an attractive and roomy tandem-seated sidecar. (Right) An OEC-Blackburne wheel steered taxi—not without possibilities for the family man."

average small boy, who likes it better than sitting in the sidecar a small boy would, of course, prefer such a place; it is unorthodox, and he can fidget to his heart's content, reach over to read the speedometer, and eat apples and sweets. The above-mentioned children, incidentally, are rigged up with inexpensive leather helmets at 5s 6d each. They do not wake up in the night crying with earache in consequence of the side draughts, which sometimes whistle round sidecar screens. Another vastly important thing in connection with pillion riding is often ignored ; that is the spring- ing of the seat itself. For small children the springs of a standard pillion seat are usually much too strong, and many youngsters com- plain of internal pains after a long ride simply in consequence of this. Any pillion seat maker will fit springs to suit a particular weight if asked to do so...It can be taken for granted that one must motor cheaply if five or six be the usual complement. There is no cheaper motoring; in fact, there is no cheaper travel at all unless it be by excursion train, and side- car costs may even beat excursion fares if a party of six has to be accommodated...Naturally, a heavily-laden machine must be kept in good condition; covers, inner tubes, and chains must all be watched to guard against a sudden failure which, when away from headquarters, would incur an hotel bill for six people."



"American sidecar practice: This sturdily constructed sidecar fitted with an artillery wheel is

thoroughly in keeping with the heavy four-cylinder Militor to which it is attached, but the design may not appeal to British tastes."



"A swinging hood and a curved screen which obviate the necessity of side curtains. The former, made of aluminium, swings back into the locker, leaving the sidecar clean and tidy in appearance. Mr HW Prockter, 109a, Streatham Hill, London, SW2, is the maker. (Right) The Coupette sidecar, with rigid disappearing hood—a very graceful design and particularly suitable for medium-powered machines."

AS WELL AS HIS WORK FOR TRIUMPH Harry Ricardo designed a three-litre racing car engine for Vauxhall, so when Vauxhall planned an expansion into two-wheelers he was the obvious choice. Ricardo delegated the job to his chief designer, Frank Halford, who had ridden a Riccy Triumph in the 1922 TT and had designed aero engines. Halford came up with an ohv 945cc in-line four with shaft drive. Advanced features included leading-link forks, a duplex frame and saddle tank. Manxland author Bill Snelling (who is no mean exponent of long-distance trialling and racing) brings the Vauxhall story up to date in his excellent autobiography, *Motor Cycling Mates and Memories*: "Through my acquaintance with [Douglas aficionado] Bob Thomas, I was able to ride a unique motorcycle, the in-line Vauxhall four...it was something very special, and a great privilege to ride, albeit for a very short distance. Enough parts were made to produce three bikes, but we think only one was built. The machine was in kit-form when Bob got it, and the wheels were missing: the previous owner had put them under the floor during the war, and forgotten them when he moved house. Bob had to knock on the door, explain the situation and ask if he could lift carpets and floorboards, to get his wheels – luckily they agreed! He contacted the people at Vauxhall to see if they had any plans etc, and he was sent a complete set of engineering drawings; within a few weeks of those plans being sent to Bob, the drawing office at Vauxhall burnt down! The tank was one of the missing parts, but Vauxhall got its apprentices to make a replica. The machine was low-geared, suitable for sidecar use, Bob rode a complete lap of the TT course in top gear. Another link to my motorcycling is that the Vauxhall had been ridden in the Lands End Trial."



What might have been: The Vauxhall in-line four.

WHILE VAUXHALL WAS using a Ricardo design to dabble in two-wheelers, Triumph, which had good reason to appreciate Harry Ricardo's talents, was moving in the other direction. Colonel Claude Holbrook (who, as an Army captain in 1914 had placed the first order for 100 Triumph DR bikes) became Triumph general manager in 1919; now he arranged the purchase of the abandoned Hillman car plant in Coventry where production started on the Ricardo-designed 1,400cc side-valve saloon car. Motor cycle production continued at the Priory Street site.

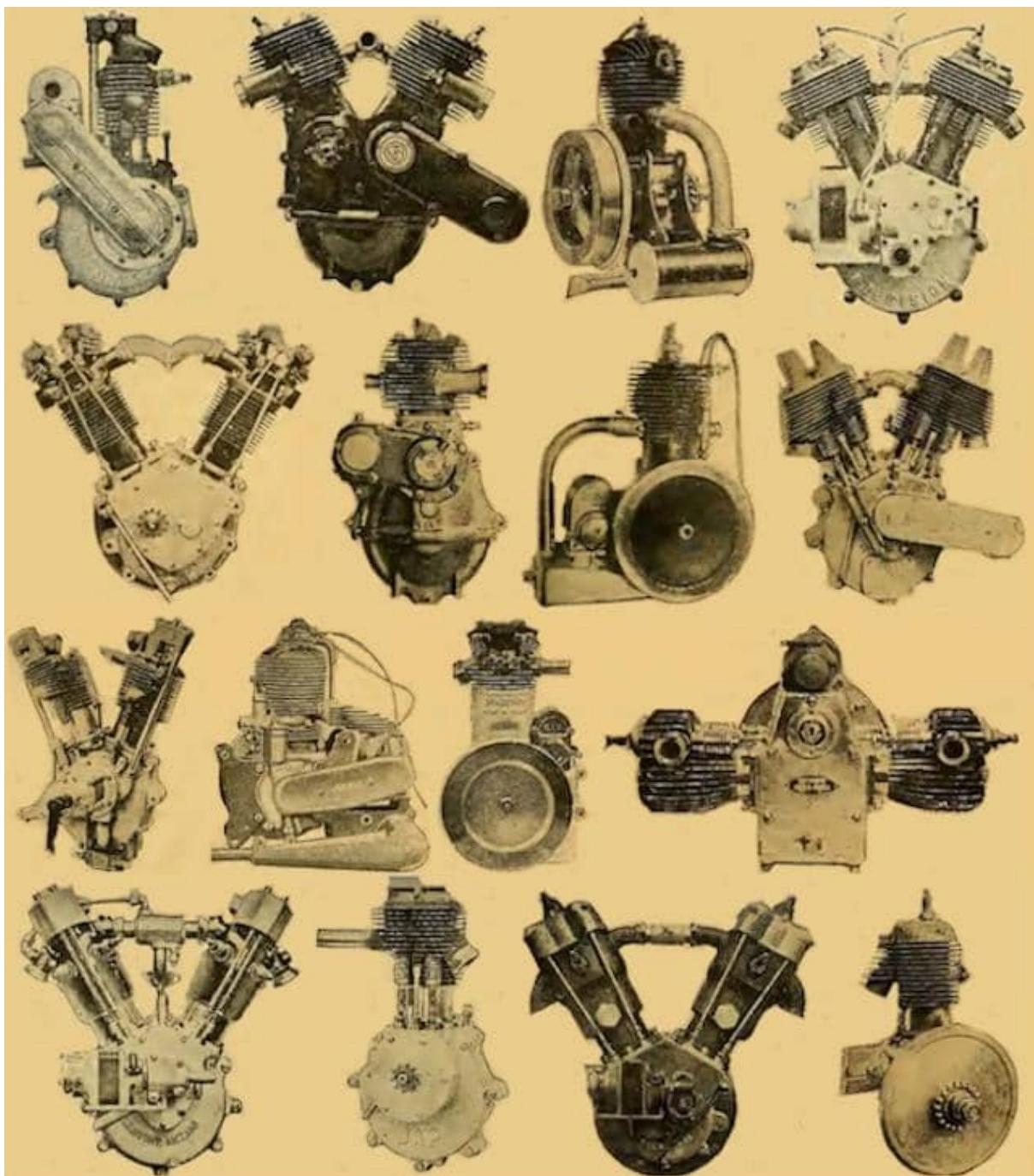
"CONTINENTAL NATIONS HAVE BEGUN to realise the value of a good track to the motor industry, and it is only since the building of the Italian Motodrome at Monza that serious attempts have been made to lower the English records. This has been done by the Garelli firm, which claims several world's records. The machine used was the same which won the International Grand Prix on the occasion of the opening of the Monza track. The riders were Visioli, who won the 350cc class in the French Grand Prix this year, and Ferragni, who came in second in the 350cc class in the Italian Grand Prix. Timing was carried out by the official timekeeper of the Italian MCC, and the course was measured by the official measurer. The Garelli covered 500 miles at 63.4mph. If these records are allowed the Garelli will have beaten the 350cc world's records for 300, 400, and 500 miles, and four, five, and six hours, as well as the 400 and 500 miles in the 500cc class."



"Seconds count, even in long distance records, and the method of filling the oil-tank of JH Mather's record-breaking Rudge shows that this rider has realised the fact."

A PROPRIETARY ENGINE DESCRIBED in the simplest terms is an engine available on the open market to all who build motor cycles. Naturally, the larger manufacturers make practically every part of their machines in their own works, but many firms of the highest repute buy power units from specialists in engine construction. Curiously enough, while the best known makers of complete motor cycles flourish in the Midlands, several of the better known proprietary engine makers hail from London and the South. The popular JAP is not only our oldest proprietary engine, but one of the earliest British-made engines, and it is interesting to record that in 1903-4 it was fitted to the first motor bicycles made by firms which have since reached the highest rank. It competed against the then invincible Continental makes in 1904 and 1905, and was soundly beaten, but its makers stuck to their work, with the result that the modern JAP engine can, and does, triumph brilliantly wherever it is used. JAP engines are available in capacities ranging from 250 cc to 1,080cc. Next in order may be mentioned the Blackburne, originally known as the De Haviland. The range of Blackburne sizes has gradually been extended, and all types from 250cc to 1,098cc are made. As originally designed, with one-piece crankshaft, split big end, outside flywheel and detachable head, the Blackburne units had a long run of success, but latterly some of those features have had to give place to more progressive developments, chiefly in regard to the adoption of ball and roller bearings. Among Continental engines, the only one which has ever attained popularity in England is the superbly-made MAG, the initials of which stand for the title and address of the firm—Motosacoche, Acacias, Geneva. The word Motosacoche means 'motor in a toolbag', the name given to one of the early light-weights which grew from a miniature then rated at 1½hp through bigger and bigger sizes until, for the British market, the 993cc and 1,098cc big twins have been specialised; smaller twins are available,

however. Two small singles also come from the MAG works. A distinct departure from ordinary practice is the sleeve-valve B&S engine made by the famous scientific instrument makers, Barr & Stroud, Ltd, of Anniesland, Glasgow, under Burt's patents. The type of single-sleeve valve used first saw the light in the Argyll and Picard-Pictet car engines. Silent in operation and yet highly efficient, the B&S is rapidly attaining the popularity it deserves; for 1923 the 350cc engine is supplemented by another single of 500cc and a V-twin of 1,000cc. Finally, among the four-strokes must be mentioned the British Anzani which is a highly efficient, beautifully made twin-cylinder of 986cc and 1,075cc capacity, which has met with considerable success on the track. In the Coventry Victor we have the only flat-twin proprietary engine. It has been on the market for several years and has given great satisfaction. Only one capacity (688cc) is offered. We now come to the two-stroke proprietary engines, of which the most prominent is the Villiers, the pioneer of its type. Being early on the field, its makers have brought the Villiers engines to a high state of efficiency, and the introduction of a flywheel magneto, which now serves to provide lighting as well as ignition current, has gained them further popularity. Other two-stroke proprietary engines are the Broler and Juckles, the latter is a new proposition introduced by the maker of the well-known Juckles gear boxes.



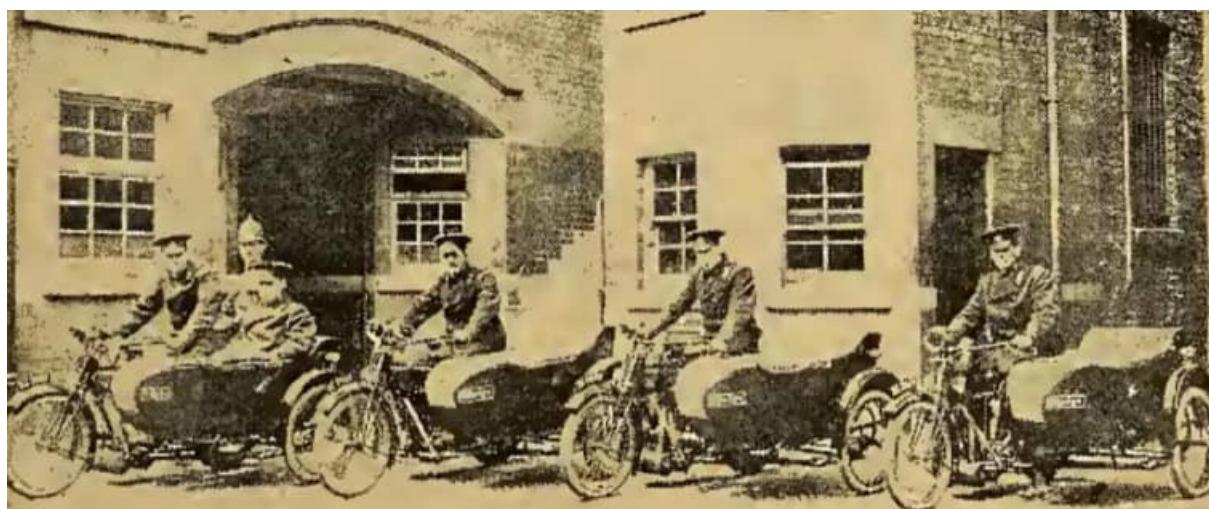
Proprietary engine (From top left): 1,098cc IOE MAG, 277cc two-stroke MAG, 349cc ohv Bradshaw, 688cc sv Coventry Victor, 346cc IOE MAG, 998cc sleeve valve Barr & Stroud, 343cc two-stroke Villiers, 1090cc sv Precision; (bottom row from left): 1,078cc ohv wc Anzani, 346cc sv JAP, 1,090cc ohv wc Blackburne, 249cc sv Blackburne, 696cc ohv Blackburne, 499cc sleeve valve Barr & Stroud, 349cc two-stroke Broler, 976cc sv JAP.

"THERE ARE NOT MANY ITEMS in which the motor cycle has the motor car down and taking a count, but the gear box is certainly one," Ixion opined. "Quite juvenile readers can recall the date when our gear boxes consisted, of imitation, alarm clocks, built into the rear wheel. You adjusted the control after breakfast. You injected a rather special oil at lunch. If you did not, towards 3pm there would be a sickening scrunch, after which you might conceivably get home by roping the belt rim to the wheel spokes, and walking all hills. Alternatively, you possibly used a variable belt drive. If so, trying to catch a well-buttered eel swimming in Castrol would be

child's play to the ascent of Amulree in a pukka Scots mist. Even these gave trouble. I never climb Porlock without recalling a famous rider, who went west in the war, as he sat below the first bend, using language which made passing exhausts smell like may-blossom, and throwing out on to the road with both hands innumerable bits of a belt gear which had collapsed, and which he couldn't reassemble in the right order. One still has trouble with a car box on occasions. But not with motor cycle gears."

"SIR,—I HAVE MADE CAREFUL INQUIRIES and I find that medical opinion is strongly against the effects of the wind resistance set up by the great motor cycles which hurtle along our main roads at anywhere between 30 and 80mph. Many of my friends, including the local police constable, who is an extremely good man, agree with me that if the present 20mph speed limit were abolished, someone would be killed. May I, as an unbiased spectator, who has some little knowledge of the mechanical side of motor cycles, suggest that machines ridden 'solo' should have a limited piston displacement of 150cc, and sidecar machines 250cc. This would increase the efficiency of engines, and therefore be a great economy in fuel and oil. I fear a few of the wrongly-termed 'sporting' fraternity will call me a silly man, but I am prepared to defend my suggestion. I have mentioned it to several motor cyclists, and they all finally agreed with me that the community in general would benefit greatly, and that motor cycling would be within the means of many more.

AO RUSSELL."



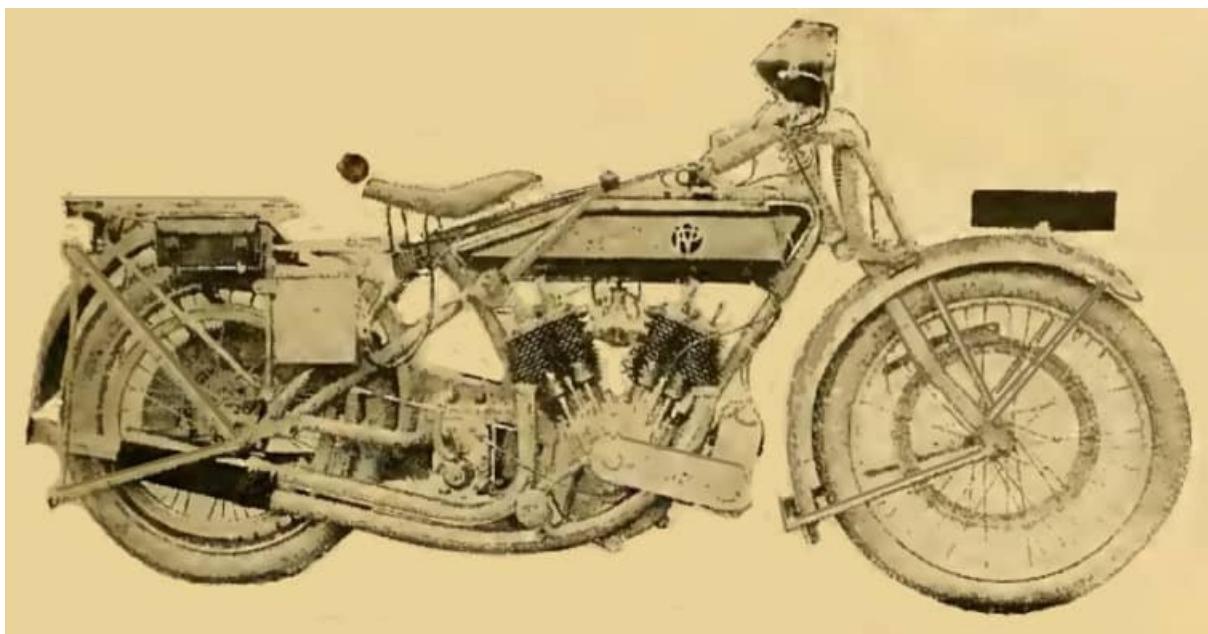
"Motorised police. It is becoming common in large towns to maintain a squad of police motor cyclists. The four Rudge sidecar outfits are part of the fleet used by the Liverpool force."

"THE NOVEL POWER UNIT of the 249cc Rover comprises engine, oil sump, gear box, kick-starter, clutch and magneto, built up in a common assembly. The engine has overhead valves operated by roller bearing rocker shafts, and the detachable head is fixed by three studs. The primary drive is triangular, the chain passing over the magneto sprocket. Very attractive features of the machine are the B&D shock absorbers on the front fork, the new saddle tank and the spring-up back stand."



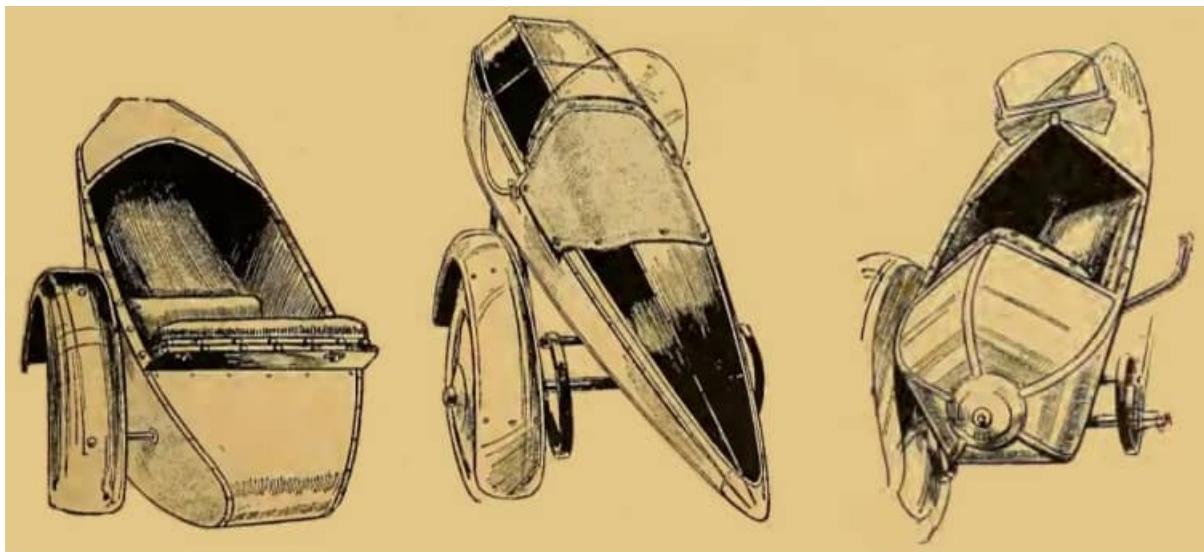
"On the new 249cc Rover the primary chain drives the countershaft and the Maglite; hence the curious shape of the chain cover."

"THAT IT HAS SURVIVED SO MANY years successfully when other systems appear and disappear in the course of a 12-month proves that the PV spring frame is worthwhile. It is a simple design. Two pivoted arms, which carry the rear wheel, are extended to the saddle tube and connected with coil shock and rebound springs enclosed in the last-mentioned member. For 1923 the wheelbase has been considerably shortened by the simple expedient of moving the saddle tube forward so that its lower end is in front of the bottom bracket. The model at present under discussion is...an entirely new model with the 976cc JAP engine."



"New 976cc spring frame PV."

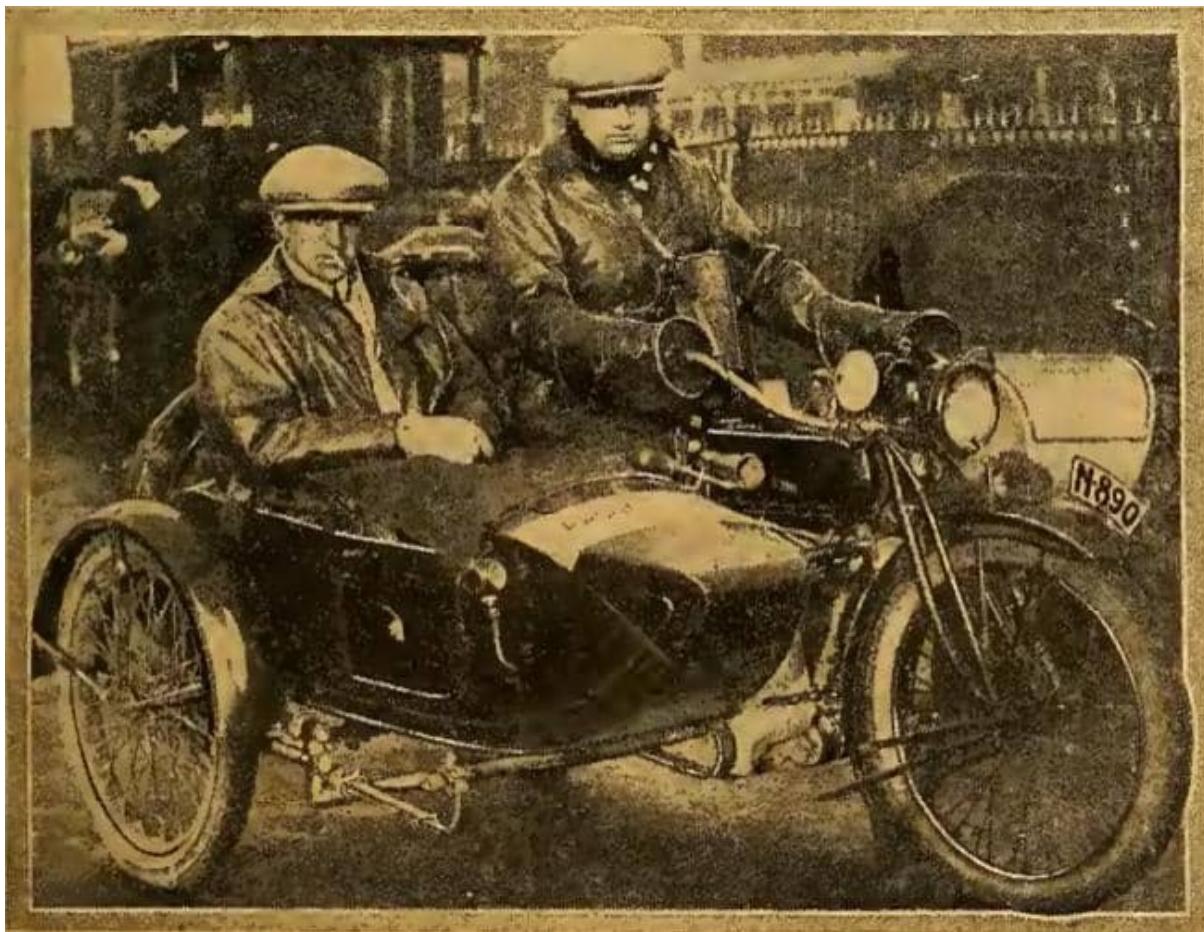
THE SWALLOW SIDECAR COMPANY was formed in Blackpool by William Lyons, on his 21st Birthday (4 September in case you were wondering) and William Walmsley. Walmsley had previously been making sidecars and bolting them onto reconditioned motorcycles. Within a few years they diversified into car bodybuilding before launching their own SS range. After 1945 when SS was unlikely to be a marketing aid they renamed their cars Jaguar and cease to be of interest to this timeline. However the sidecar interests were sold and Swallow branded sidecars survived until the late 1950s. [And, 50 years after Swallow's launch, I bolted a Swallow Jet 80 onto a plunger A10 and painted a noble sidecar aubergine with blood-red flame effect. Sorry – Ed.]



The latest designs from two pioneering sidecar companies and a newcomer (from left): "Millford sporting sidecar with mudguard on body; a striking design of sidecar by Montgomery, finished in aluminium; The sporting model Swallow sidecar."

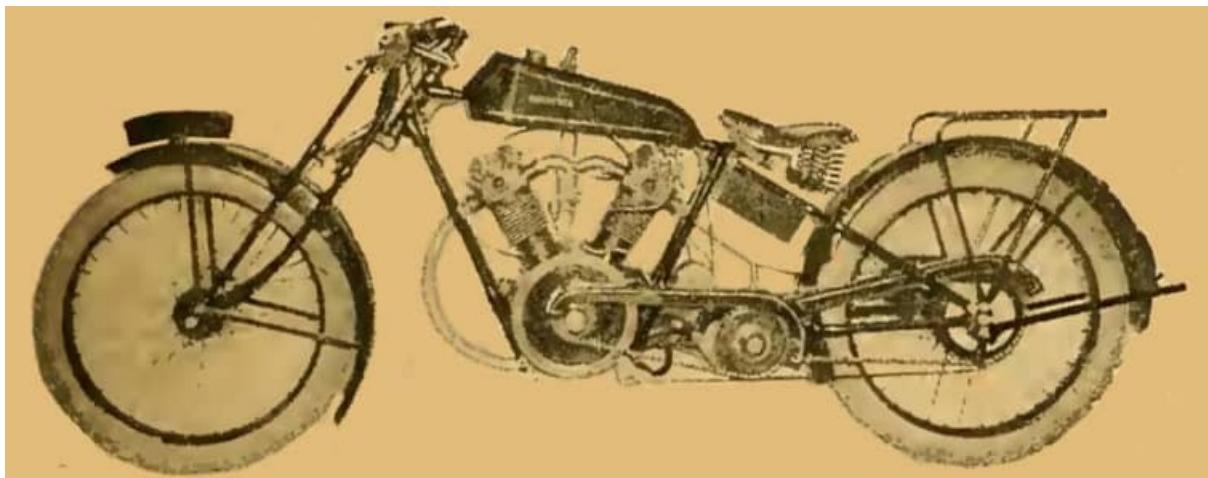
"AN AMATEUR ROAD RACE AT LAST. It is practically certain that a race for amateurs will be run in the Isle of Man next September. The Manx Motor Cycle Club been promised an open permit, and this will be used for an amateur race over the Tourist Trophy course, the organising club being satisfied that the definition of an amateur suggested by *The Motor Cycle*...in every way covers requirements. Now that the Manx Club and the Auto Cycle Union are in agreement over the race, The Motor Cycle has been invited (and agreed) to provide the trophy which shall be the premier award. Without doubt the event will be an extremely popular one among amateur speedmen all over the British Isles, and as the term amateur has long needed a definition in the motor cycle world, the proposed amateur race may be regarded as a test of honour as well as of sheer riding ability. It will, therefore, behove every competitor to adhere strictly to the spirit and letter of the rules in order that motor cycling may take its place among those other sports in which the terms amateur and professional have a definite meaning. The nature of the Manx course is such that super-tuning is not so important as skilful riding therefore, no amateur in possession of a reasonably fast and controllable machine should hesitate to compete on this score. The Manx Club is to be congratulated upon its perseverance and enterprise, which a very large section of riders will appreciate to the full."

"AFTER THE CLUB DINNER...Seen on the Birmingham-Warwick road: A leather-clad, be-helmetted and be-goggled speedman vainly attempting to inflate one of the security bolts of his Norton."



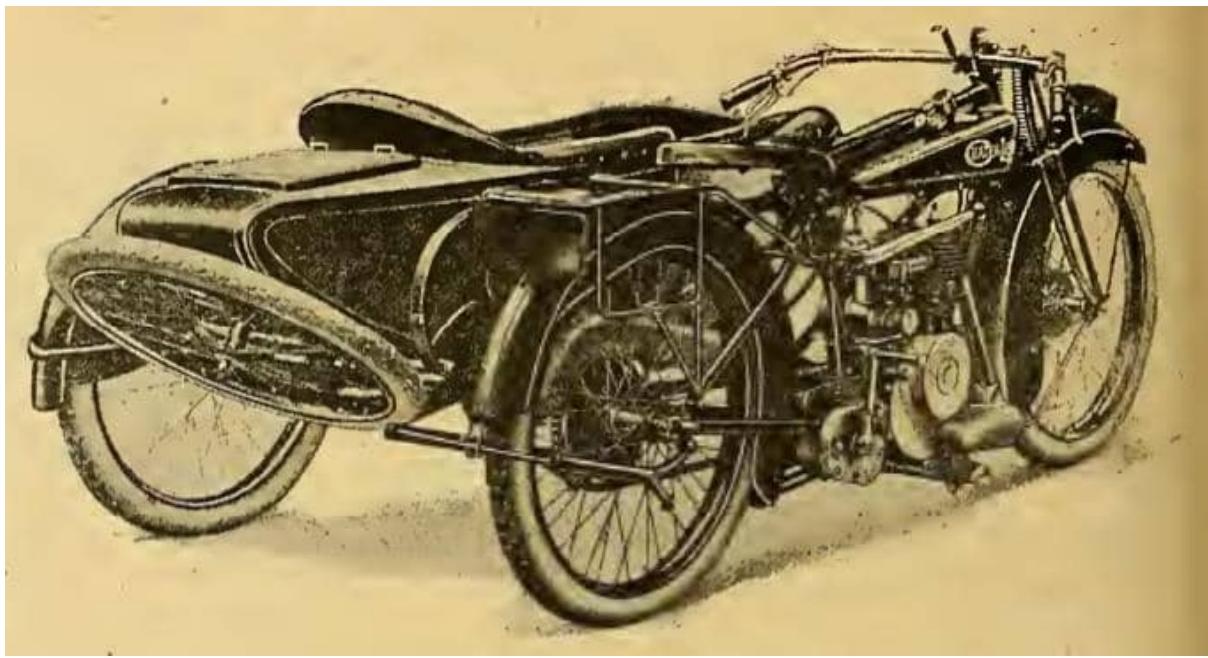
"Establishing a new record. This driver and passenger rode from Prague, Czecho-Slovakia, a distance of nearly 1,000 miles, in order to visit Olympia. Such enthusiasm would be hard to beat even among British riders."

"TEMPORA MUTANTUR: I(XION) ALWAYS GARNISH my pages with Latin tags to camouflage the fact that I was educated partially in the gutter and partially at a Board school. What I want to say is that veterans like myself might lie pardoned for going down on our hams and doing pujah to the modern sidecars and cycle cars, as the untutored Hindu did to the first locomotive which he beheld. My first passenger machine was a Century tandem not at all bad. Its chief merit being that the passenger was stuck right out in front to take the impact after any miscalculation on the driver's part. My second was an Excelsior forecar. You could remove the forecar, insert a spare wheel, and use the machine as a solo mount. If you did not deliberately take the forecar off in garage, it generally dropped off on the road. My third was a Dennis quad. Its best point was its mudguards—lovely rolled aluminium. The stage comedian's junk car generally has four speeds—slow, slower, —— slow and ——, —— slow. My Denis quad had only two—the two last. Then I bought a sidecar. It was a wonderful vehicle—but it went!"

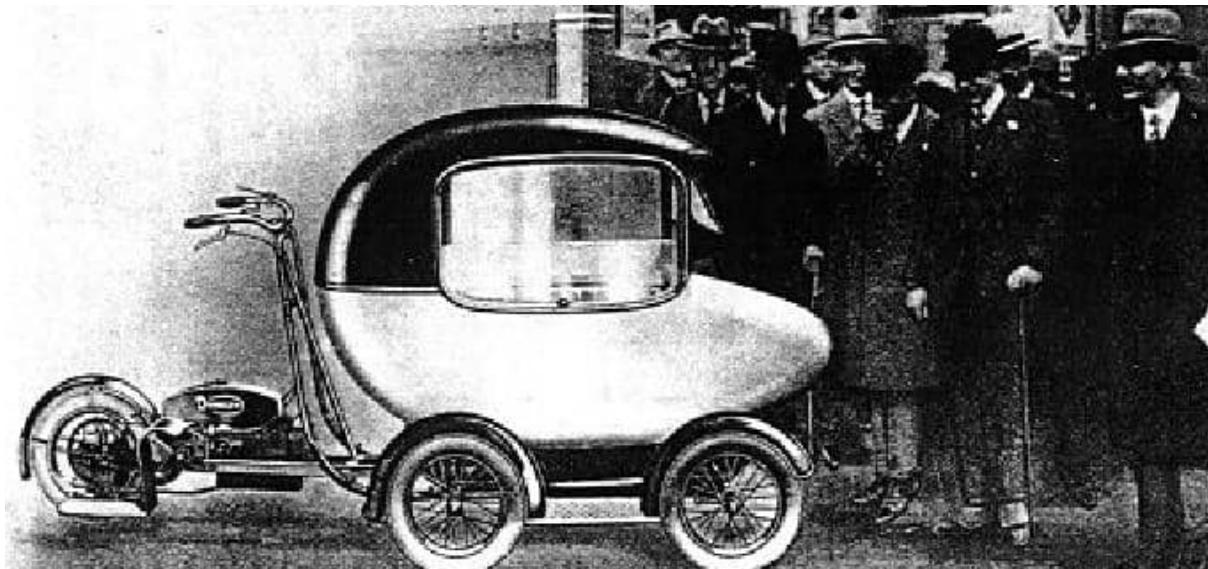


"Weatherell machines [made in Hight Road, Kilburn] are probably better known in their 250-350cc forms, but the rakish looking 696cc ohv model with a sidecar attached has by no means disgraced itself on its few appearances on Brooklands track. It is an imposing machine, and should prove to have remarkable powers of acceleration."

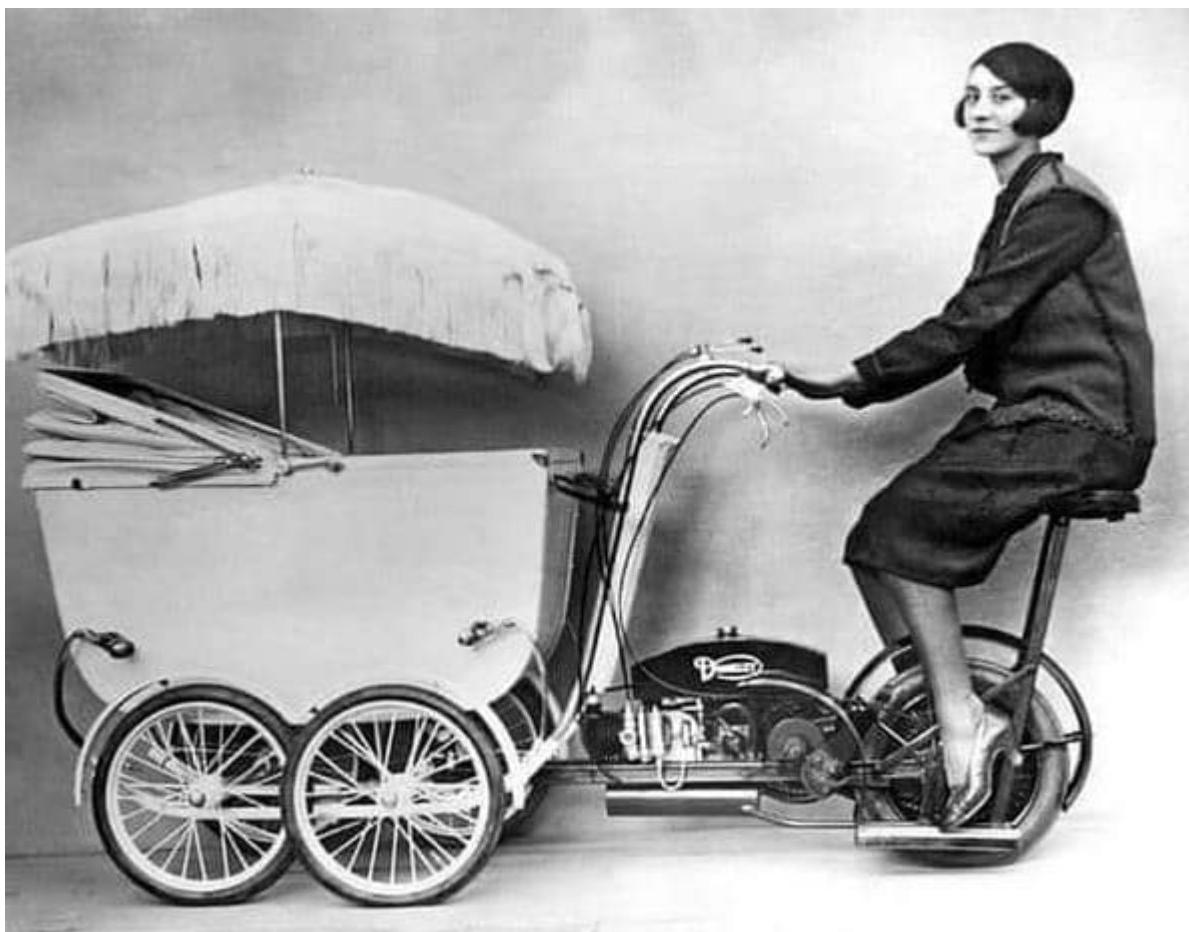
"A READER HAS SENT ME A PAIR of experimental anti-dazzle goggles, which he will probably market shortly," Ixion reported. "Oddly enough I saw another pair the next day designed on a trifling variation of the same principle. Both goggles had their lenses built up from two pieces of glass. In each case most of the peeping space was white, but each glass included a dark blue or green panel. In one case the subfusc insertion was a horizontal sector at the top of the glass; in the other it was a vertical sector on the right-hand side. On meeting a 30-98hp Vauxhall at speed with huge lamps, the rider merely tilts his head downwards or to the left, according to which type of goggle he is wearing, and takes the glare through the coloured glass. A writer in *The Autocar* asserts that before glaring head lamps motorists behave like a small bird when fascinated by a serpent with a Svengali eye. That if we only had sufficient strength of mind not to look at head lamps, we shouldn't be dazzled. If that is so, I am a small bird, and have a weak will. I find the dark panels in both these goggles excessively comforting."



"Equipped with spare wheel, the 545cc Chater-Lea and sporting sidecar make an attractive medium-weight outfit."



Dunkley was at the Motor Show with a novelty: a saloon style four wheel pram with a stand-up scooter protruding from the back making a five-wheeler marketed as the Pramotor. Even the Duke of York stopped by for a gander.

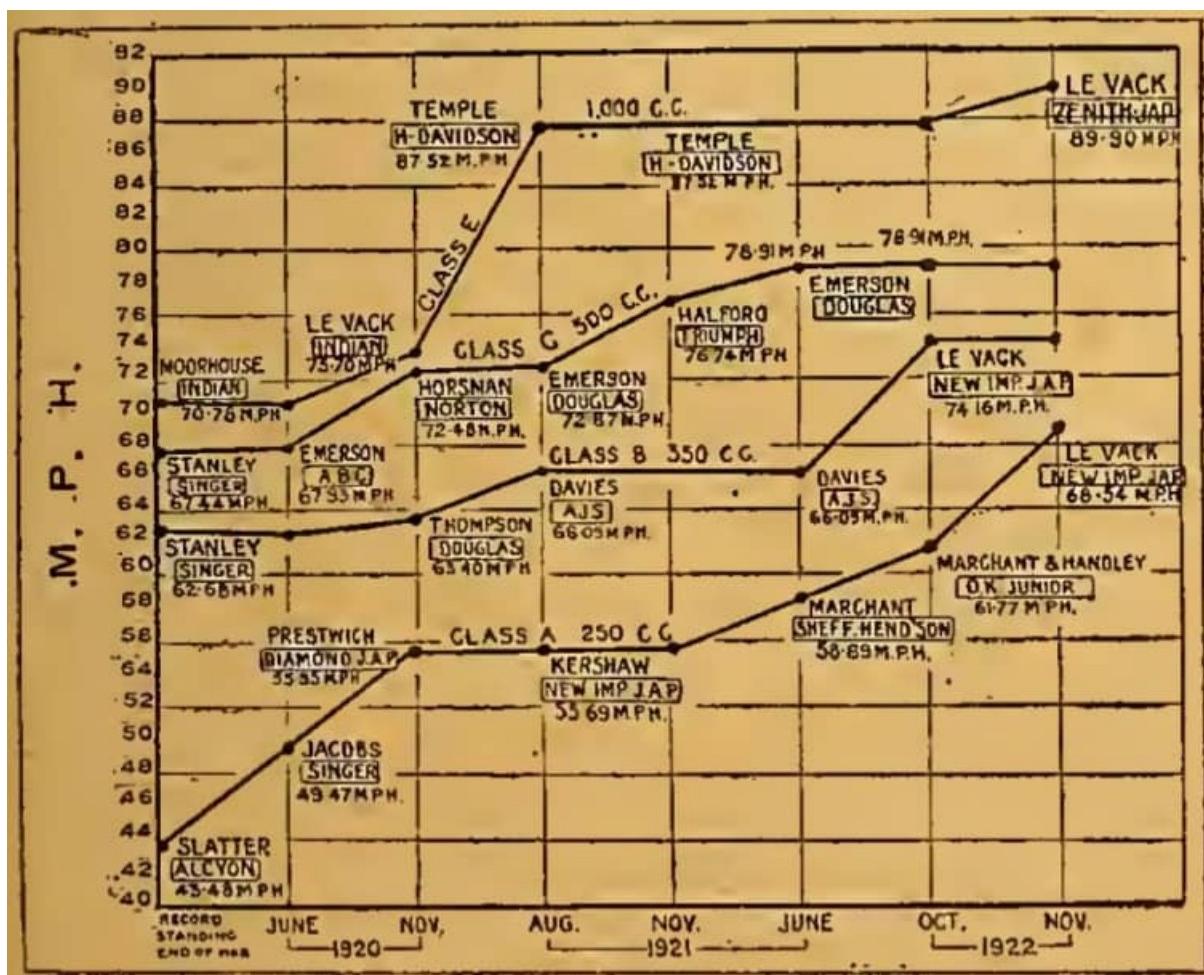


...and here's a rather glamorous shot of the Pramotor. At about this time delivery drivers were staging races on Parisian streets aboard their Trimoteurs; what a pity we didn't see governesses racing Pramotors round Hyde Park.

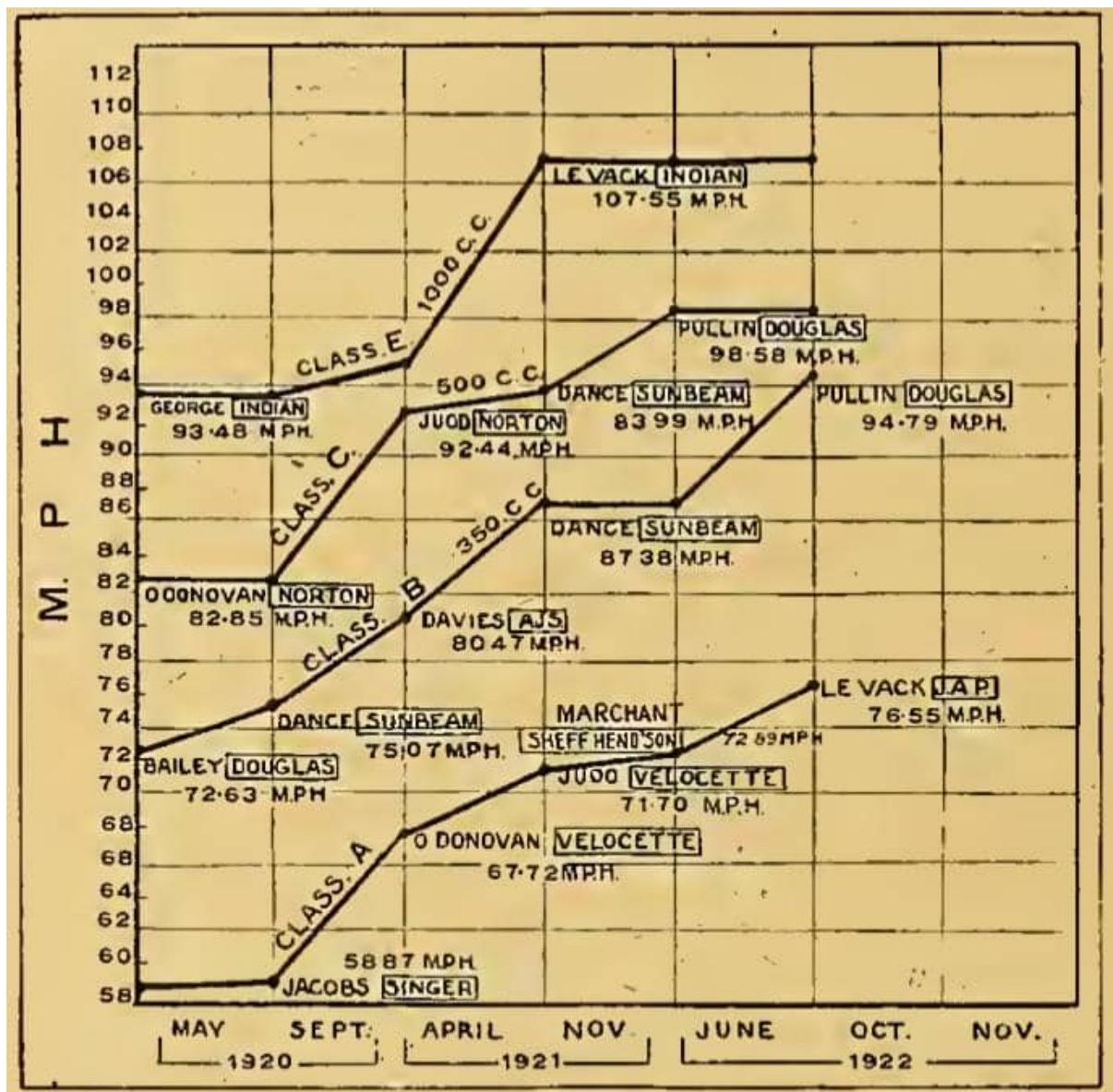
...AND WHAT'S MORE IXION JUNISSIMUS came near to riding in one. "I never take ladies to motor exhibitions," Ixion Snr remarked. "They ask silly questions. Not of me. They know better than that. But of the stand attendants. Who look sympathetically at me while they explain. I resent sympathy from dudes unknown to me. I had to break my rule at last month's Car Show. As a peace offering. I had been detected in something, and this was my ransom. So we went. I led her straight to the Dunkley Pramotor. (Knew I'd got to buy her something after what had happened, and thought a Pramotor would be cheaper than a Rolls.) No luck. One disdainful glance, and I was dragged off to study the 50hp Sizaire-Berwick. Her expert opinion is that Mr Dunkley is either a bachelor or a grandfather. At least, he knows nothing about babies. I hadn't noticed it before, but it is true. The bisected scooter on which Nursie stands is at the back of the Pramotor. Screened from the infant's view by the rear leather panel of the saloon. So that Baby can't see Nursie. Now, when our nth Ixionette loses sight of Berenice (Berenice is our nurse) even momentarily, it makes a noise compared to which the last trump intensified through a Magnavox is the first bleat of a young lamb. (I compromised with a Trojan saloon eventually.)"

"THERE CAN SURELY BE no clearer proof of the improvement which is taking place in motor cycle engines than is afforded by a study of the record lists, past and present. These valuable lists are compiled by Mr AV Ebblewhite, the well-known time-keeper, who has officiated with the watch at practically every record attempt. A comparison of post-war record lists with those of pre-war days reveals very clearly the reason for the hold which the small machine has latterly obtained upon the popular fancy. Increased speed upon the track is the fore-runner of more

efficient touring machines. Brooklands has been the testing ground for every improvement in engine design; the vast expanse of concrete is a

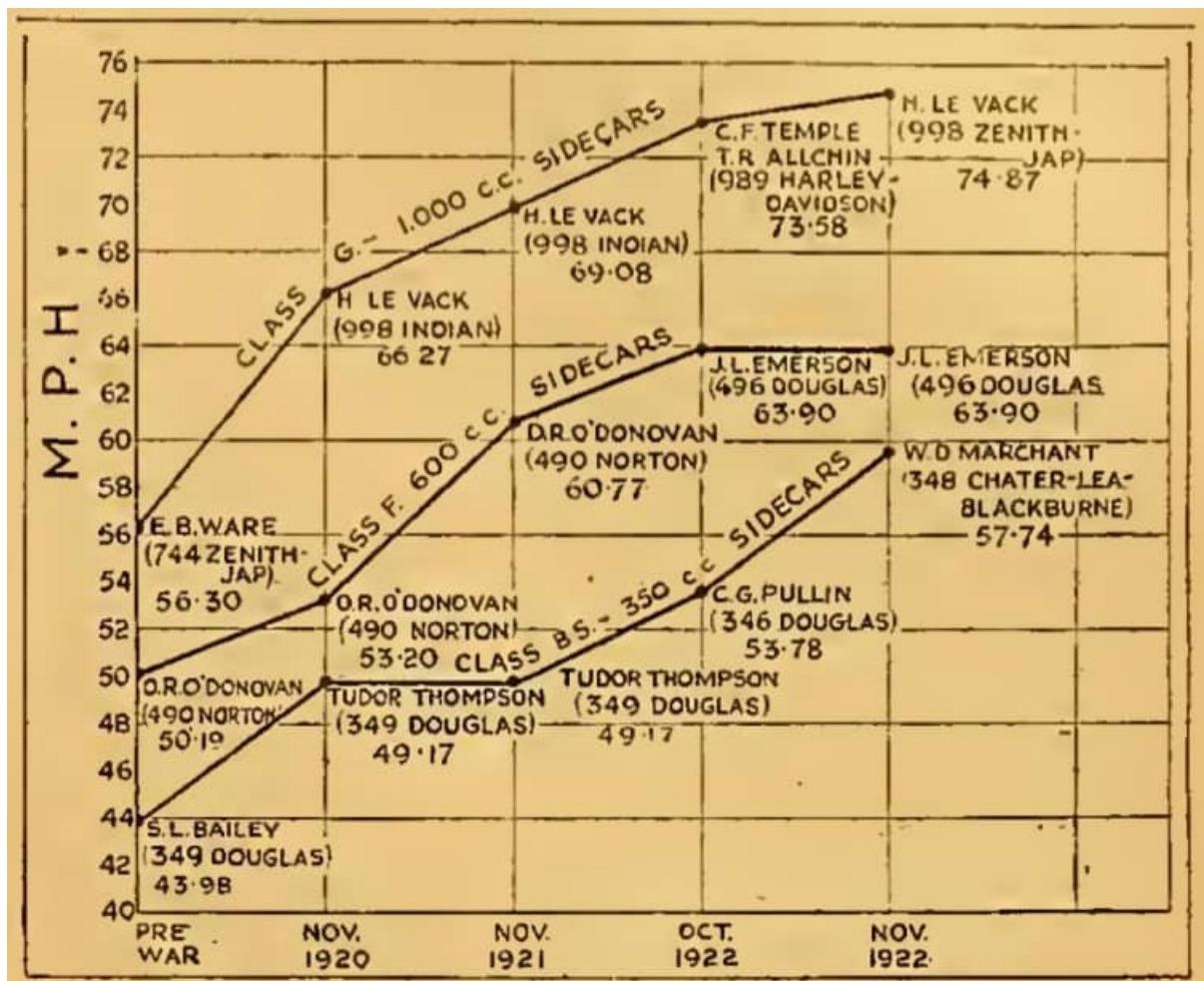


hard teacher, but it does its work thoroughly. It deals harshly with bad design, and with poor material, but it has been largely instrumental in keeping the British motor cycle ahead of its rivals. 'Speed,' says many a motor cyclist who likes to consider himself a hard-headed business man, 'is all right for the madman who wants to tear about the country at 60mph. All I want is a machine that will get me about at a reasonable speed. What I need is reliability, pure and simple.' Maybe. Reliability is undoubtedly the best asset any motor cycle can have; but surely a machine which has been proved capable of sustaining 60mph for 12—or for 24—hours can be considered more free from liability to defects, such as broken valves, weak frame, warped cylinder, or stripped gears than another, the sponsors of which hesitate to submit it to such a gruelling test? Not for publicity alone does the average manufacturer indulge in track work; rather is he endeavouring to prove that his design is right, and, if it is not, to discover its weak points, later to rectify them on his standard production. The charts which accompany this article demonstrate very clearly



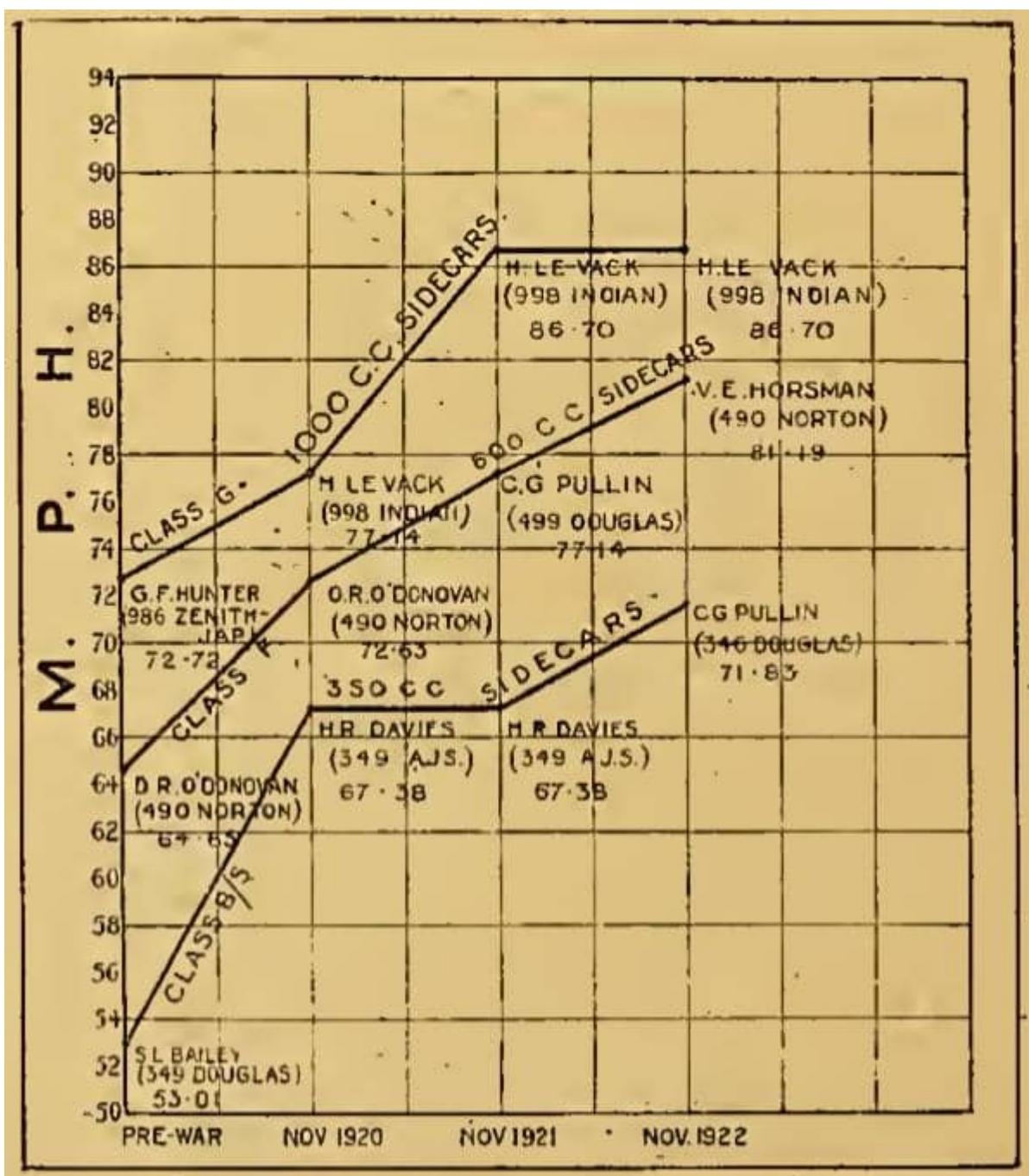
"Post-war rise in flying-kilometre speeds of solo motor cycles."

the manner in which the speeds of the various classes have yearly tended upwards. Observe how the graph denoting each engine capacity has encroached on the past maximum speed of its bigger neighbour, until to-day the small machines are attaining speeds which were out of the reach of their bigger brethren a year or so ago...It should be pointed out, however, that the world's record speed for any motor cyclist still remains the property of America. It is 108.68mph, and it was accomplished by E Walker on April 14th, 1920. Walker's machine was a 998cc Indian, and the speed mentioned was that at which he broke the five-mile record at Daytona Beach, Florida. The course was, naturally, dead level, and of perfect surface; somewhat different, be, it noted, from the conditions obtaining at Brooklands. All



"Sustained speed of sidecar machines for one hour."

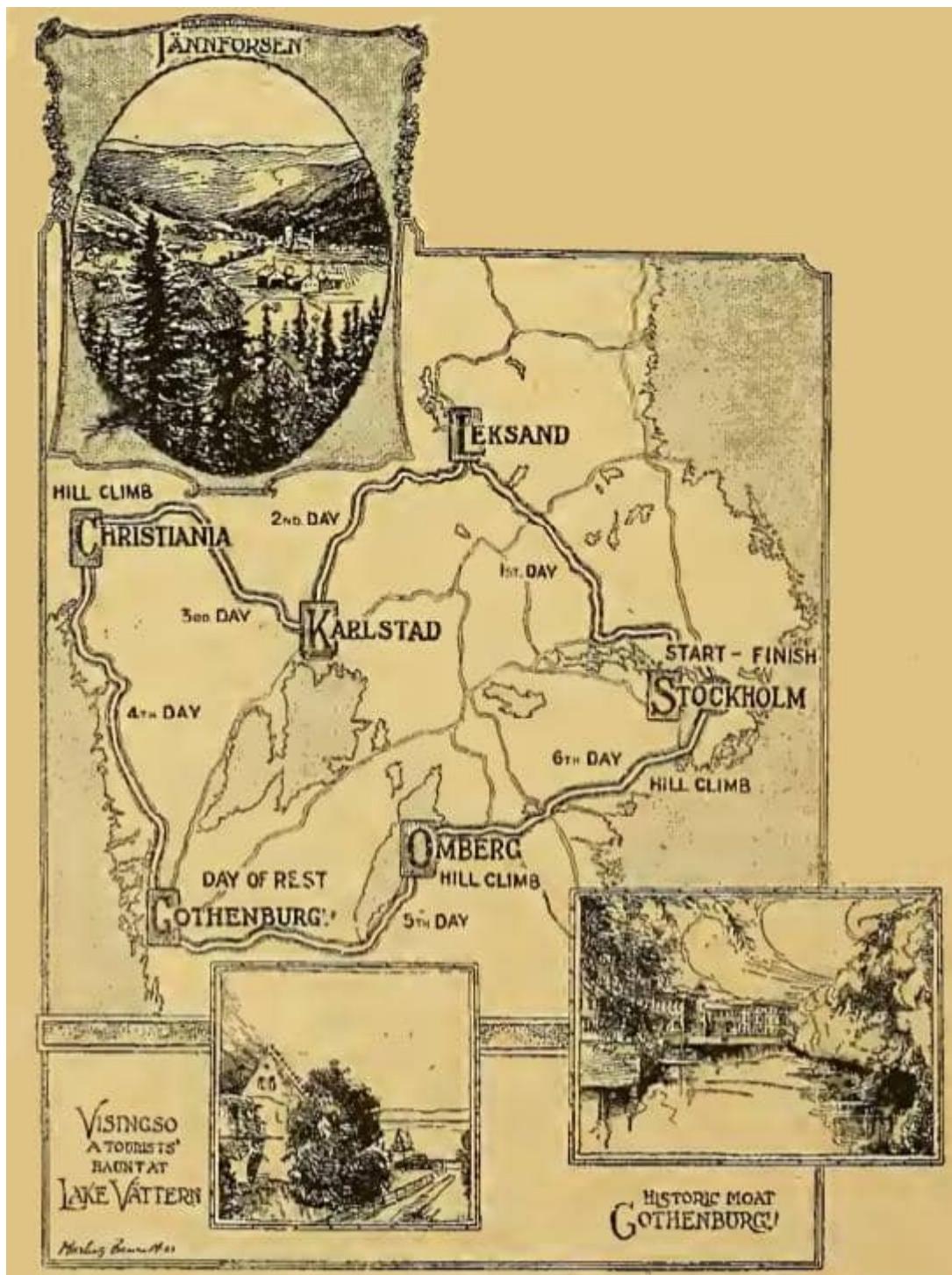
credit, however, to Walker; remember, he put up this record over two and a half years ago, when the highest speed standing to the credit of any British rider was 93.40mph. It is sufficient that, the record having passed the stringent scrutiny of the FICM, the conditions under which it was made may be taken as satisfactory. Very little reflection is needed to make it apparent that there is no surer test of reliability than that constituted by sustained speed...There is but one successful continuous 24-hour record attempt recorded in England; it is that of Harry Collier at Canning Town track on May 5th and 6th, 1909. Collier used an 862cc Matchless-JAP, and his average speed throughout was 32.32mph. As most people are aware, it is not possible to attempt a similar run upon Brooklands track, whilst, taking into consideration the fact that Collier alone rode the machine throughout the whole period, and that several hours were those of night, it is not practicable to compare this achievement with any of the recent 'double-12' and 'triple-8' hour records...The upward soar of the graphs makes one wonder whether if ever finality in speed will be achieved. It may be that, in a few years' time, speeds which we now consider impossible will have been attained; on the other hand, it may be that progress in engine design will be checked by insuperable difficulty in holding the machine, so that attention will more than ever be directed towards more diminutive engine capacities."



"Maximum speeds of sidecars over the flying kilometre."

"DELEGATES FROM TEN LARGE motor cycling countries met in London last week. For the first time since 1919 the International Federation of Motor Cycle Clubs, known as the FICM, held congress in England. A sub-committee sat for the purpose of confirming and checking claims for world's records, with the result that for the first time since motor cycle records have been placed on a proper footing Continental nations figure in the world's records list...Italy has several records to her credit in Class B, and France has a record in the new Class Z for motor-assisted bicycles and another in the 'scooter' class (Class Y, for machines not exceeding 175cc). The delegates of the Federation Internationale des Clubs Motorcyclistes were entertained at an official luncheon by Great Britain, and ten nations were represented—the United States of America, Spain, Holland, Italy, Belgium, France, Denmark, Sweden, Switzerland, and Great Britain...A banquet was given to the delegates of the FICM at Jules'

Restaurant, London W...After the loyal toasts Prof AM Low rose to propose 'The Motor Cycle Movement'. The motor cycle, he said, is the most efficient form of transport known. He remembered cases during the war where wireless had failed but motor bicycles managed to win through. He hoped it would not be long before people would be saying that a man had not really lived who had not ridden a motor bicycle. The movement provided the finest sport in the world and health for all...In rising to propose the toast of the visitors, Col Brereton said he was sure that such meetings as had been held that afternoon did more for international friendship than the various serious political meetings of which we have heard so much recently. He sincerely hoped to see union in Spain, and on the next occasion that the Spanish representative would come with the good news that the Catalunian Club had joined the fold. One of the delegates who attended the recent FICM meeting in London was Mr GKH Anderson, who is chairman of the Competitions Committee of the Svenska Motocykel Klubben. Mr Anderson, who is exceedingly enthusiastic over the coming International Six Days Trials which his club is organising in Sweden, gave us some useful information concerning the nature of the roads to be traversed by the competitors, as well as about conditions generally in his country...British competitors should have no traffic difficulties in Sweden as the rule of the road is the same as in Great Britain, but in Norway (where the Norwegian Club will take charge, of the trial for two days) the general Continental practice of keeping to the light is observed. Main roads will be followed throughout, but Swedish main roads are very much different from those in England; it is said that there is not a steam roller in the country. The legal limit of speed in Sweden is about 25mph, but in Norway it is only 18½mph, and these limits are, of course, reduced in towns. The time schedules will be worked accordingly, while the roads will be marked by blue dye."



"Course

of the 1923 International Trials in Norway and Sweden."

THE BLUE 'UN LISTED 680 models 'produced by manufacturers who exhibited at the Olympia Show'; prices ranged from £24 3s for a 43cc single-speed Clement to £186 18s for a 976cc Sunbeam sidecar outfit.

"THE POSSIBILITY OF OBTAINING commercial quantities of power alcohol from prickly pears is discussed in the Times Trade and Engineering Supplement. There are 2,000,000 acres of prickly pear in the Union of South Africa, and spirit from a formula invented by an Orange Free State farmer has been tested in motor cars of different types and has been reported on very favourably. Government analysts find it free from corrosive or other properties detrimental to

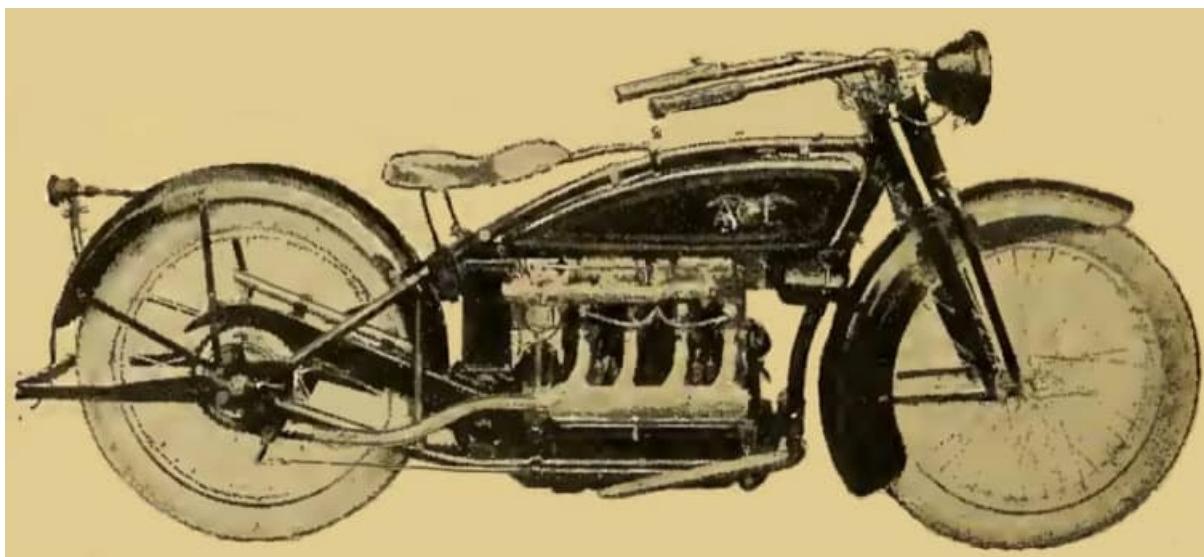
engines. Its commercial possibilities have yet to be ascertained, but, if found satisfactory, an annual production of 350,000,000 gallons of spirit is considered possible."

"AS AN EXAMPLE OF HOW CLEAN a motor cycle tank can look, the new Dot fitted with the Bradshaw engine stands out," said Ixion. "It has a handsome saddle tank with just one solitary excrescence—the nickel petrol filler cap. I foresee a day when, what with twist-grip control, hub brakes, enclosed power unit, saddle tank, and mechanical lubrication, our machines will become as smooth as a cowhide suitcase. And a good thing, too."

"NEWS ITEM FROM SWEDEN. 'Motor Cycle Club of Sweden recently arranged the great trial for the November Cup, 700 kilometres, day and night riding. All best riders taking part. Eric Westerberg, Harley-Davidson flat twin, won, taking home the cup for ever. Westerberg is a man to meet the best foreign riders when Sweden will arrange International six days trial in 1923.' We have to thank a Swedish correspondent for the above information, which, we think, the majority of our readers will appreciate more in its original form than had a sub-editor attacked it."

"WHEN THE ULSTER GRAND PRIX was being run (according to a correspondent to the Children's Newspaper) the noise of the machines in the distance was so like the croaking of frogs that a local frog joined in the chorus—quite out of season, too." The first Ulster Grand Prix was won by Norton; other class winners were OK, Trump and Brough Superior.

"THERE ARE FEW MORE INTERESTING or fascinating machines on the market than the four-cylinder Ace, which is designed by Mr WG Henderson, a name long connected with four-cylinder motor cycles. Only those who have driven a four-cylinder machine can fully appreciate its charm of smooth running, wonderful acceleration, and flexibility. To the man who has not, such a machine as the Ace, weighing 3651b, might seem to be so unwieldy as to be uncomfortable, but we can assure him that once inertia has been overcome the riding balance is perfect. Few of us are trick riders or want to emulate the performances of the Ace experts, but it is distinctly interesting to know that this machine can be turned in about one-third of the width of an average street with the rider leaning over to such an angle that the footboards are within one inch of the ground. The Ace engine and gear box follow car practice right through. The 1,229.c (68.58×82.55mm) engine in its latest form still preserves the feature of overhead inlet valves, with the result that since the inlet is directly over the exhaust the in-coming charge cools the latter...Contained in the rear portion of the crank case is a three-speed gear, a plate clutch being mounted car fashion on the end of the engine shaft...another interesting feature of the Ace is a three-gallon tank, which incorporates a spacious tool compartment. Both brakes are of the external contracting variety working on two drums, one on each side of the rear hub."



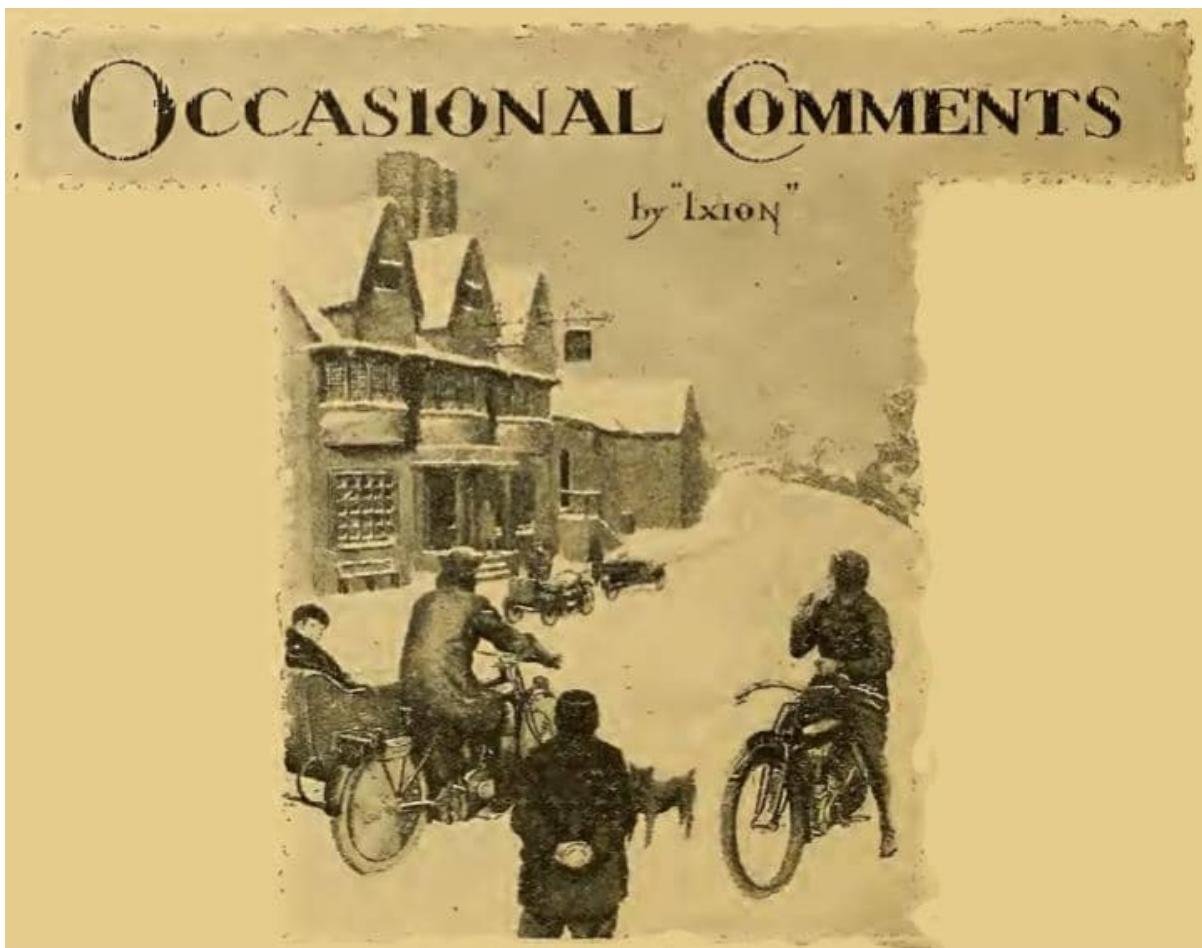
"85mph is guaranteed from this sports model four-cylinder Ace."

"MANY GALLONS OF PETROL have been used since the Motor Cycling Club was formed by those gallant enthusiasts of 1901, who laid the foundation of the largest club of its kind in Great Britain...Its annual dinner and 21st anniversary was largely attended by members and their guests, who completely filled the big hall of the Wharncliffe Rooms at the Great Central Hotel, Marylebone...The chair was occupied by Mr JK Starley, the club's president [who] concluded by asking why the ladies did not form their own branch of the MCC and run their own competitions... reminiscences of 21 years ago were then given by some of the older officials, but these were sadly interrupted by an unruly portion of the gathering...Mr Ernest Arnott, first captain of the MCC, said that...his chief recollection were of. flat belts, surface carburetters, and hard pedalling. He remembered the advice of Mr Charles Jarrott (for many years the club's president) that the best thing to do in a race was to get to the finish, as it often happened in those days that a finisher had an excellent chance of being the winner..."



...and here's

Ernie Arnott on his Werner, pictured in 1903 when he was among the British contingent in the chaotic Paris-Madrid race.



"HEARTY GOOD WISHES TOR A MERRY CHRISTMAS to all my readers, critical, appreciative, and bored stiff. May a pale British sun (December model) camouflage the extreme cold of the afternoon as they manfully take the road after far too much dinner, and help them to pretend that they are enjoying themselves. For myself, I have chopped a huge limb off the ancestral holly in the back yard of Benzole Villa. I have filtered half a pint of aviation wherewith to illuminate the pudding. I have locked up the garage, lost the key, and disconnected the telephone in case the editor should suddenly require my services (which is his abominable habit on public festivals). All the motor cycling I shall do on Christmas Day is to open parcels. I circulated my list of wants round my relatives and acquaintances in good time, and I sincerely hope that my place at the dinner table will be fortified with a great sangar of parcels. Lots of new gadgets. Large cheque from pa-in-law (I sent him a box of Coronas in very good time). Etc, etc, etc. But the open road? Archibald, certainly not! Preachers and publicists often croak to the effect that Englishmen are becoming decadent. The climate certainly is. I can remember when nearly every Christmas was a white Christmas. But latterly the most the Exeter procession has had to contend with is fog and rain. It would be rather a rag if sometime a real snowstorm would suddenly descend upon these unfortunates, say, about Sherborne or Chard, and bury the roads thigh deep. Not if it were my job to report it, of course; except that I should probably learn quite a lot of new swears; A good reserve of cusses comes in very handy for a motor cyclist on occasions, doesn't it? Suppose by the law of averages it will happen some day, won't it? And what fun we shall have! Wish I hadn't thought of it. But, you see, I am going to Exeter this year. Solo, too."

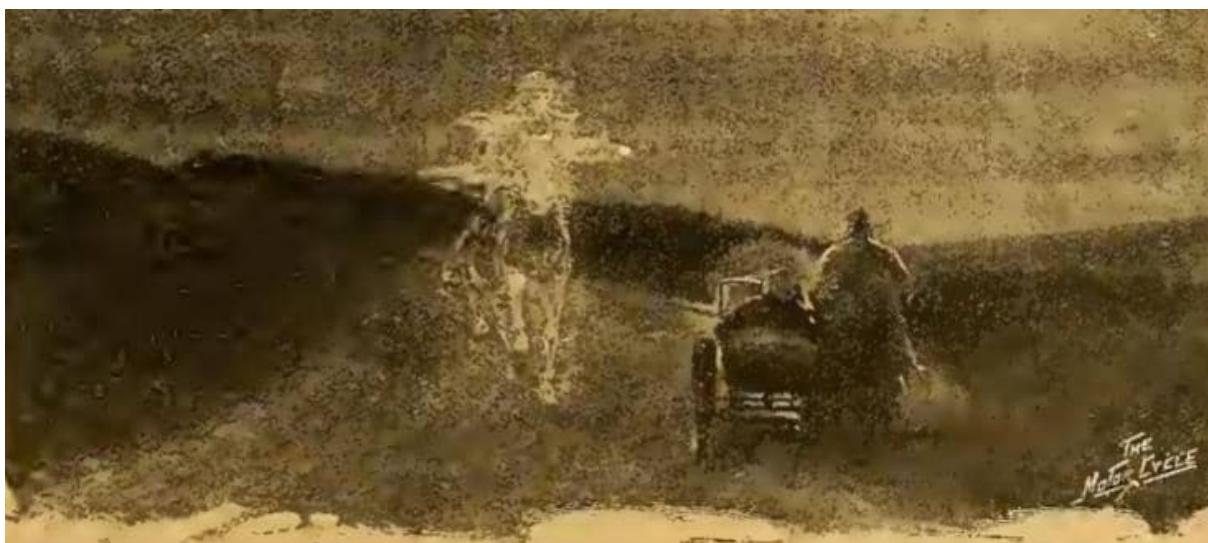
"NORTH AND SOUTH. I CONTRIBUTE A PARABLE to this discussion. [Butch northern clubmen and soft southern pansies had, for some weeks, been sniping at eachother through the Blue 'Un's correspondence pages]. Once in the South and once in the North I lived in hilly country at a considerable distance from railhead. When my engine was temporarily seized up or otherwise *hors de combat*, I would reluctantly hire a horse trap wherewith to reach the slow but reliable train. The southron gee-gee merchant, at the first sign of a declivity, reined in his nag, and proceeded down the hill at a cautious crawl, with his eyes popping from their sockets, and every muscle of his frame rigid. *Per contra*, the stalwart northerner emitted A war-howl, lashed his horse to a gallop, and took the precipice at a hand-gallop. When examined as to his tactics, he would explain: (1) If one has to die, die like a man. (2) Creeping down hills is boring. (3) Anyhow, a horse is much less likely to stumble at a gallop. His combination of humour, sportsmanship, and common sense appeals to me."

TALES THAT ARE TOLD.

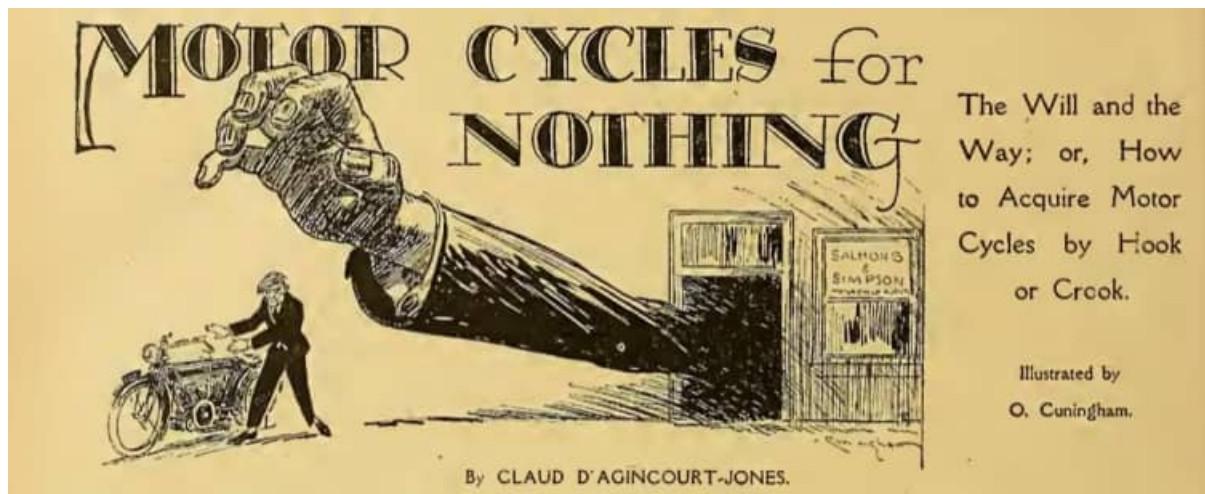
Phantoms of the Road
of which we hear over
the Nuts and Wine at
Christmas time.



"Of a ghost in St Leonards Forest and a counterpart in Warwickshire. A tale is told of a certain Captain Powlett, whose spirit is said to wander about St Leonards Forest with his head under his arm. Why, history does not tell us, for Captain (or Squire) Powlett was not beheaded and died naturally in 1746, In Warwickshire, somewhere near the old Roman Fosseway, there is a coppice and a barn between which another headless nomad of the spirit world is said to run on certain nights of the year."



"Of highwaymen bold-and otherwise. Dick Turpin, so the story goes, still haunts the scenes of his misdeeds. Tradition says that his spirit is partial to a side lane on the Knutsford-Warrington road, yet we rarely hear of him on Putney Heath or near the Spaniards at Hampstead. Other highwaymen have left a ghost or two, and one of their victims, a sailor, is said to appear on Hindhead whenever the sky is cloud wracked and a watery moon is sailing."



The Will and the Way; or, How to Acquire Motor Cycles by Hook or Crook.

Illustrated by
O. Cunningham.

"DEREK MULLINS LAID DOWN THE SHOW REPORT issue of the 'Blue 'un' with a sigh. 'We'd better cancel this paper at the newsagents, you fellows!' he opined, with a sigh; 'I'm sick and tired of reading about the finest sport in the world with no prospect of ever being able to afford it. Let's chuck it and resign ourselves to ping-pong.' The two men who shared his diggings put down their books and stared at him despondently. 'Mervyn's suggestion last week wasn't half bad,' remarked Jim Elyard. 'We all give up gaspers and little drinks, and save like blazes. In a year, with luck and prices going on dropping, we might raise enough of the ready to buy a fifth-hand outfit. One on the saddle. One on the carrier. One in the sidecar. Take turns at driving, of course. Better than nothing.' 'Rot, Jim!' was Mullins' ungracious reply. 'We all know old Mervyn's got a chin like a doorstep, and can live like a hermit when he wants to. You and I can't. Our average salary is round about £4 a week. These digs, run us in for two-thirds of all we earn. Then there's clothes and things. Can't be did. Besides, one of us is sure to shift his berth soon, and then we'd have to sell the 'bus anyhow. And what about our girls? How long should we keep them if we did bachelor stunts together every weekend. Think again, old chap.'

An Idea.

Came a quiet voice from Mervyn in the corner. 'I've been thinking...' Derisive chorus from the other two. Mervyn laid down *Sherlock Holmes' Last Bow*, and expostulated. 'No, honest, you fellows. There's pounds and pounds about an inch from the tips of my fingers, and I really believe that if we put our heads together we tan grab some of it.' The chums greeted Mervyn's brain-wave with derogatory suggestions. Backing winners by faked telegrams, they supposed? Marrying heiresses? Falsifying the cash books? Mervyn let them exhaust their witticisms, and proceeded. 'I stepped into the Blank Motor Company's place on my way home—saw a 1923 twin Zenith that was worth looking at. Inside the office old Blank had about 40 typed police slips pinned up, all warning him to look out for stolen motor cycles. I got home ahead of you chaps, and snatched the first read of our 'Blue 'Un'. I see that insurance societies think nothing of offering a tenner reward for tracking a stolen 'bus. Nobody seems to go after these pinched machines with any push and go. They just notify the police. The police notify the garages. The garage never bothers to verify a chap's frame and engine numbers when he stops for petrol. Seems to me that three lads who meant business might rake in a lot of these tenners, don't you think?'

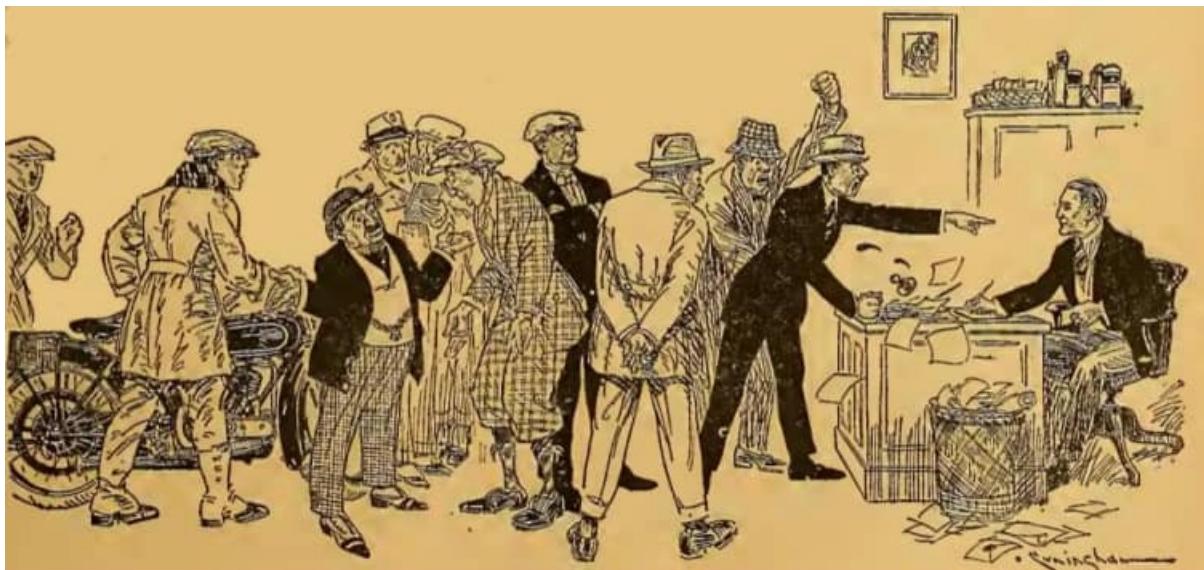
Various Plans.

'Yes, and I've got the trick of it,' almost shrieked Mullins. 'We rig ourselves up as bobbies, and play the "examine your licence" stunt somewhere every Saturday and Sunday. Jim squints at their papers while old Mervyn there cocks his eye over the machines and spots the crook stuff.'

I'm the Dempsey of the gang, and secure the criminal if he turns nasty. Then we collect from the insurance blokes.' Elyard, always matter-of-fact, torpedoed this notion. 'And the sergeant arrives on his rounds before the first "pinched" bus appears. So we all do time for impersonating police officers!' 'Well, that's not the only way,' said Mullins, not a whit abashed. 'How's this? We all three get jobs as petrol boys on one of the big roads out of town. Space ourselves out over 50 miles. Study those cop papers that Mervyn was yarning about. Cast our eagle eyes over every bike we have to serve. In say six months we ought to nab, say, 50 out of the hundreds that get pinched?' 'Stow it,' growled Mervyn. 'I've pretty well worked it out. Some of the little makes get stolen sometimes. Two of the papers at Blanks were about a 311cc Creeper and a 249cc Tripper. Now if I know anything about it, there aren't more than 50 of either ever been turned out. We approach the makers, get the frame and engine numbers of all the 'buses they have ever delivered, and advertise that we'll give a high price—say £5 under list—for a secondhand sample. The thief 'ull jump at the chance of such good money. We nab him—and we nab all the other machines which he has nefariously collected.' 'Dud, old chap,' answered the relentless Elyard. 'Dudder than dud. It's the petty little once-in-your-life sneak thieves who pinch Creepers and Trippers. Your wholesale merchant won't look at anything that isn't both good and common. He'll specialise on something like Triumphs or Sunbeams of one model; change the numbers; camouflage them with new paint and different accessories; and pass as an honest trader. Your stunt is a wash-out.'

Concentration.

'I believe you're right about wholesale thieving,' mused Mervyn abstractedly; 'but it don't follow that my stunt is a wash-out. Suppose we concentrate on a first-class 'bus that's been delivered by thousands like the 550cc Triumph. With a few calls or letters we'd get to know how many have been stolen say in the last three months, what their numbers are, what genuine series numbers exist, and so forth. Then we bustle round and advertise extra good money for Triumphs. We ought to get into touch with a gang somewhere. I expect they pass these pinched 'buses through a lot of hands to cover their tracks, especially with the second-hand market as dead as it's been lately. They'll jump at a fair price.' This plan brought the three heads very close together. The 480cc Peterson was substituted for the Triumph, as Mervyn had a pal in the Peterson works, and fancied he could rapidly obtain a lot of inside information. For the next day or two the three typed heavily on some specially printed memo, forms of rather 'posh' character whenever their business superiors were out of range. Their bill for postage stamps was alarming; and when they left their respective firms' offices on official business, kindly but costly taxis enabled them to visit sundry insurance offices without arousing suspicion about the length of their absences. A week later quite a pile of information had been correlated and memorised. The 480cc Peterson, as everybody knows, is a high-class machine, of which probably some 18,000 have been made, and is always in steady demand even down to seventh or eighth hand. Listed at £110 during 1922, its second-hand price in these slumpedish days is certainly not over £75, unless the buyer be what salesmen call 'easy fruit'. So the following advertisement was calculated to stir the pulse of any anxious super-thief, who had two or three dozen Petersons leaking out from a back street workshop on to the



"He was called many hard names."

market by devious routes at a net return of perhaps £45 apiece to the principal criminal. The trap was baited as follows: "*Bring your 1922 Peterson to us. We know you meant to keep it for 1923. In a year it won't be worth more than £50. We offer you £78/10 cash down in notes on inspection. We can do this because we need 100 immediately to fill an export contract. We will accept your order for any 1923 model. Easy payments if desired.—Salmons and Simpson, Commission Agents, 992, Wool St, EC.*" The Thursday on which this advertisement was published saw Derek Mullins commence his annual three weeks' holiday at an unwonted season of the year which considerably amazed his boss. It also saw him installed in a temporarily rented office at 992, Wool Street, complete with stenographer, typewriter and other accessories complete. The stenographer had nearly wrecked the entire business, for she was Elyard's best girl at the moment, and Elyard hardly fancied allowing his *inamorata* to spend possibly three whole weeks *tête-à-tête* with such a famous breaker of feminine hearts as Derek. But the funds did not run to paying wages; and Ella was a sport, and had some leave to draw from her office. So Elyard consented with rather a dubious heart. Derek had various lethal weapons in a drawer ready to hand. He and Ella were more than punctual at business for the first time for years; and it was with slightly quickened pulses that they faced a day which might mean death, riches, or nothing at all. For some hours it was nothing that happened. They postponed lunch till 3pm on the chance of some motor cyclist in a subordinate position arriving during the dinner hour. It was not till Ella had sought the nearest Lyon's shop just after 3pm that the first caller blew in. This young giant in a Trinity Hall scarf looked as if he was the spearhead of the Cambridge rugger scrum, and breezily remarked that having put his shirt on a loser he'd got to sell his bike to face settling day. He didn't know the number, but as Derek's well-drilled memory instantly informed him on inspection at the kerb outside, the machine was honest enough. It was hereabouts that Derek realised what he was up against. The three pals, by selling all their portable property and borrowing every half-crown to be smelt among their acquaintance, had raised enough to pay for one 480cc Peterson. Of that solitary intended purchase more anon; in the meantime this cheerful Hercules had to be gently pushed off somewhere else; and when a man is expecting £78 10s for what is barely worth £75, he takes some pushing off. However, Derek sized up the giant as not being too technical to be nice. He bent over the bicycle, feeling and rattling and sniffing. 'H'm. Chains three thous'. out of pitch. Lot of big end slack. Cylinder bit oval. H'm. H'm.' At last he straightened himself. Very sorry, sir.

Your machine isn't at all in the sort of condition my contracts demand. If you really want cash for it to-day, better try a firm who specialise in overhauling before resale. Say, ——, of Portland Street.' The giant departed rather sadly, with incoherent mutterings about his perhaps having forgotten to oil the dashed thing when he rode home blotteau after such and such a match. He left Derek foreseeing trouble. By six o'clock Derek had interviewed a number of traders anxious to sell him 100 Petersons, even—if need be—at much less than he offered. He played them off against each other, and held out hopes of an immediate deal if the said machines could be arrayed for 'his engineer' to inspect them. He got rid of various callers who had fancied that Rudges or Sunbeams or Triumphs would do as well as Petersons; of a clerk who regarded a Baby Levis and a 480cc Peterson as interchangeable terms; and of a varied assortment of touts of one sort or another. In between-whiles he disposed of several honest private owners who had not been able to eat any lunch under the exciting prospect of getting £78 10s for their roadworn Petersons, and who, having killed grandmothers or invested wives with inflamed appendices, had got leave off business to fetch their bikes up to town for Salmons and Simpson to purchase. He was called many hard names, invented some atrociously false diagnoses of perfectly sound machines, and, before evening, began to feel something of a brute.

A Bite?

Next morning Derek and Ella were horrified to find a regular Mount Everest of letters heaped on the floor inside the letter-slit, and callers kept them more than busy. More lies. More insults. More stormy interviews with fierce private owners, who were not only disappointed financially, but also wounded in their tenderest spots by accusations of under-lubrication and the like. But at 2.30pm a veritable mouse took the cheese. A young, decent-looking, well-dressed stranger appeared to offer his bike for sale, and on inspection its frame and, engine bore numbers which had never been reached in the Peterson series. Derek counted out £78 10s from the £81 in notes which represented the gross capital and credit of Salmons and Simpson, and allowed the capable, smooth-spoken young man to depart with the cash, whilst he, Derek, rode the obviously stolen machine round to a garage previously selected as the firm's official storage. Had he gone mad? Not at all. Heroic as the stratagem was, the united brains of our aspiring trio had finally reasoned thusly : The thieves will certainly try us. They will send a test machine. It will cover up its tracks so well we could never trace them by it. The bringer will have a lovely alibi all cut and dried. If we seem green and ask no awkward questions, they will plant their whole stock on us within the next three days. So Derek, not without a thumping heart, reduced his firm to a state of complete insolvency, stored his solitary purchase, which represented a dead loss of perhaps £8 10s on a forced resale, and returned to the office to see that his lethal weapons were handy and in working order. The rush of aggrieved clerklets, eager to secure top of the market price for machines they had tired of, had subsided by this time. The day's bulky correspondence had been disposed of, and the time was passed in a somewhat heated argument with Ella. There were two outstanding difficulties to be solved. Should they ring up Elyard and Mervyn, add them to the staff for to-morrow at the risk of dismissal from their present posts, and utilise them as amateur trackers of any suspicious bicycles brought to Messrs Salmons and Simpson during the next day or two? This was Ella's brainwave.

Not According to Plan.

Derek for his part rather mistrusted amateur tracking, and having got the wind up, conceived ideas of ringing up Scotland Yard, and imploring the Big Four to place a cordon round his offices and rope in such trustful criminals as might rally to help themselves to his supposititious notes next morning. The argument waxed hot and strong when the door was suddenly opened without any premonitory knock. In walked three burly, alert-looking individuals, who without any more ado marched Derek and Ella off to the cells, leaving one of their number in possession. The

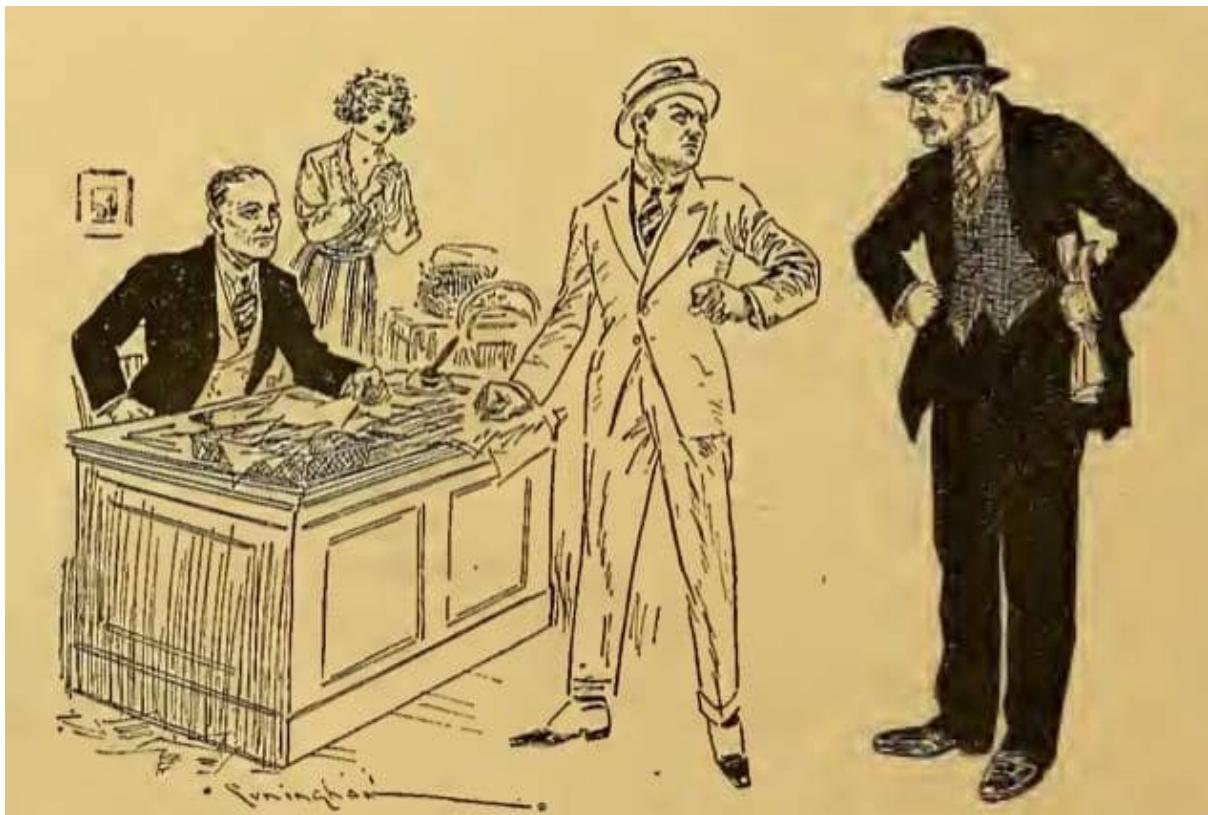
feelings which occupied the managing director and his charming stenographer during the evening can be better imagined than described. The proprietor of their garage was quite a punctilious person on the subject of stolen bicycles, and instead of being thief-catchers they now ranked as caught thieves. Meanwhile the junior partners were not wholly free from anxiety. The hours passed. Derek was missing. Ella was missing. £8*i* was missing. A visit to Wool Street produced nothing but locked doors. Nourished on Sherlock Holmes, Mervyn at least was well aware that only professional detectives jump to the obvious conclusion with confidence. But even he finally admitted that things looked uncommonly black. Towards 9pm a detective illuminated the situation, but by no means relieved their anxiety. He wasn't one of the Big Four, as they both supposed, but he was quite a sensible fellow. When their nervous, bubbling explanations at last convinced him, he sat down and roared with laughter for full five minutes by the clock. And at last two very crestfallen junior partners walked round to the police station in company with a plain clothes man who stopped every few yards to hold his sides and let fly an extremely unprofessional cachinnation.

Explanations.

The staff of the firm then held an interview with the big noise at the station. It commenced by being extremely humiliating, but ended in quite promising fashion. Next morning saw the managing director re-installed at his desk. At a smaller desk to his left sat the pretty stenographer as before. Both, of them wrestled—quite brightly, too—with the morning's correspondence. To all outward appearance the office was unchanged. It is true that the drawer near Derek's right hand no longer housed its former lethal armoury. Indeed, that armoury had suggested some rather awkward questions about gun licences. It is also true that the little room up the passage was no longer empty. Inspector Jenkins was seated there—in plain clothes, it is true, and armed with nothing but the *Winning Post*; but quite alive to anything that might happen. His presence was partially answerable for the increased *joie de vivre* of the staff, as compared with the previous morning. Only partially. For some of the inspector's best henchmen were variously disposed among the busy crowd in the street below; and one of them was taking an unconscionable time to swallow a cup of coffee near the front window of a first floor tea-shop opposite.

In the Net.

Derek not undeservedly, spent several rather trying quarters of an hour with sundry honest, earnest, covetous and irritable motor cyclists, who greeted him warmly on arrival, but made unprintable remarks about Messrs Salmons and Simpson before taking their reluctant departures. It was, however, written in the stars that 11.13am by Big Ben was to be Derek's lucky hour. For it was precisely at that moment that a youngster of some 28 summers, with whom to all appearance the Old Lady of Threadneedle Street might have trusted the National Debt, knocked smartly at the door and walked in. It was at 11.13.28am Greenwich mean time that Inspector Jenkins put down the *Winning Post* and followed hard on the heels of the aforesaid unimpeachable young man into Derek's



“So it's you, Darkie, is it?” said the detective genially.”

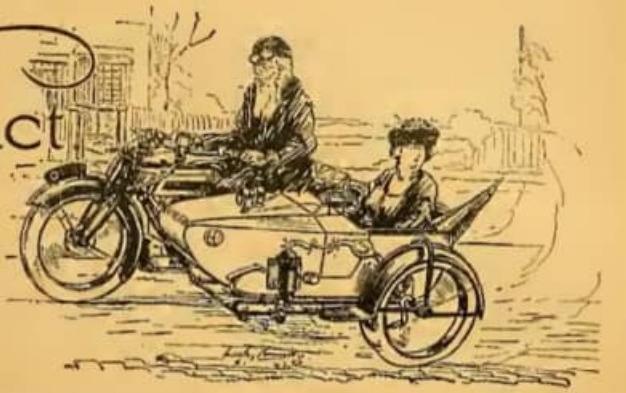
office. ‘So it's you, Darkie, is it?’ he said genially. ‘We'd been wondering what you were up to. Now are you going to tell us where all the other machines are? Or would you rather be gagged and sit in the next room with me while my men downstairs shadow the rest of your crowd back to your private garages? Have you seen the *Winning Post* this week? I can tell you one or two of the best while you're waiting, if you like.’ Darkie had quite a lot to say. His vocabulary was what you might call fruity in parts. But when his rpm died down a little, he decided to tell. Meanwhile Derek cheerily disposed of several more quite honest Peterson owners. Subsequent research on the part of Inspector Jenkins and his stalwart men proved that Darkie had specialised in several leading makes besides Petersons.

The Happy Ending.

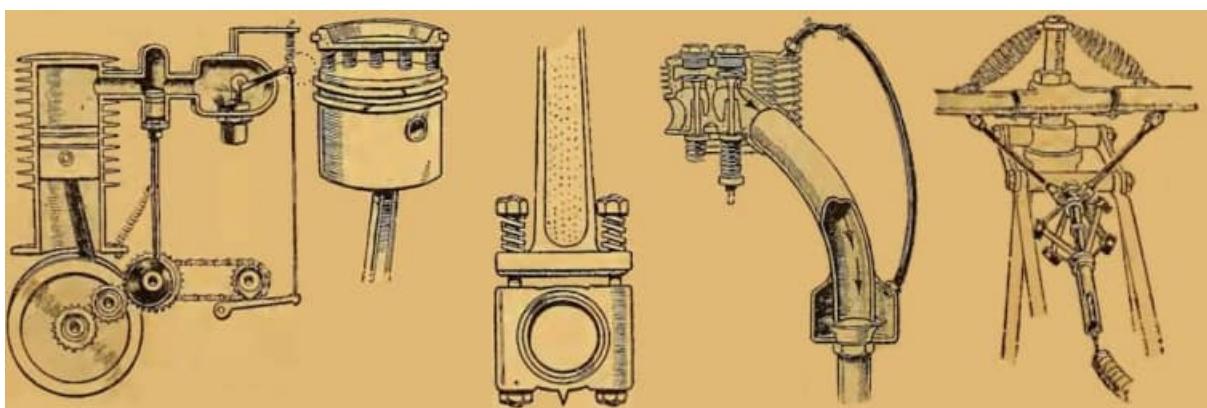
The insurance companies behaved like gentlemen. Derek, Mervyn and Elyard have all taken deliveries of extremely attractive motor cycles. In fact, the profits ran to supplying Ella with an open-frame two-stroke. And what is in the bank suggests that the monthly garage bills can be met. That they will be met punctually is another matter—we all know what youthful motor cyclists are.”

Accessories before the Fact

Revolutionary Inventions to make
Motor Cycling More Interesting.
First Fully Illustrated Descriptions
of the Astounding Grabal Patents.



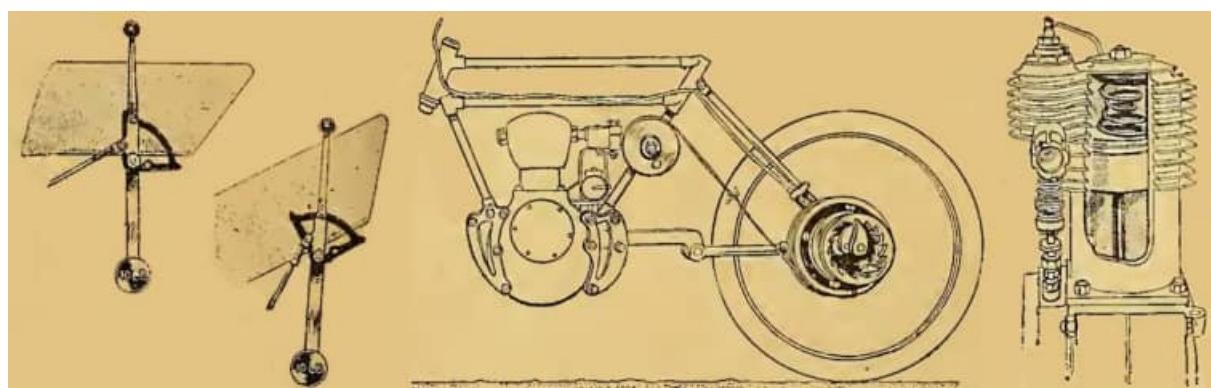
"ALL MOTOR CYCLISTS WILL BE INTERESTED to learn that the well-known firm of Messrs Graphter and Balmie, Incorp, has decided to enter the motor cycle accessory market. Hitherto, of course, this most successful business house has specialised in the sale, by post, of fibre-ball and elliptical-roller bearings, and correspondence courses on Couéism, relativity, bookmaking, the game of Beaver, etc, etc. Therefore the ingenuity, indeed genius, of the managing director of this go-ahead concern, Mr Angus I McCohen, is already common knowledge. But, to use his own words, Mr McCohen does not think the motor cycle field has yet been as thoroughly exploited as it might be...The Grabal specialities [include] automatically variable handle-bars, which change from the fully touring shape at 20mph to the flat type at 50mph, and to the fully dropped pattern at 90mph. Each side of the bar is hinged at the steering head, being normally retained in the 'up' position by two powerful coil springs. Two link members are directly connected to the collar member of a centrifugal governor, driven by a speedometer type meter needle. Like all great inventions, the idea is simplicity itself...[another Grabal device] dispenses with the magneto, admittedly a weighty, expensive, and unpatriotic instrument, and substitutes a flint spark mechanism, already familiar to, and respected by, the great general public in their cigarette lighters. The sketch in this case is self-explanatory...Incidentally, the company has purchased all the Boliguanian government's



From left: "Flint ignition adapter to replace the magneto, piston valve exposes the ignition chamber at the correct moment. Two anti-knocking fitments—the spring piston top and the spring big end. Exhaust suction in an annular chamber on the exhaust pipe is employed further to scavenge the cylinder in the Grabal extractor. Centrifugal control of the automatically adjustable handle-bars, in the '20mph and under' position."

huge war stocks of flints...Even the most modern engines are prone to knock on occasion. No less than two Grabal fitments have been evolved to banish the phenomena. One is a spring top piston; the other is a spring big end. Obviously by fitting both it is possible to do even more. Owners who are hampered in selling their second-hand machines because their engines lack

compression will welcome the Grabal recompressioner, which is a specially designed coil spring to be fitted in the combustion chamber. It restores lost compression miraculously, and, by its action in assisting the piston down on the suction stroke—a phase hitherto ignored by the designer—it is claimed to give a 17.525% increase of power... [With] the combined brake and accelerator a touch of the handle-bar button engages the pawl of a two-way free wheel in a pulley on the rear hub, and this winds up a cable from a frictionally retarded drum, which also contains a powerful spring. The machine is thus smoothly decelerated and ultimately stopped when the cable reaches a fixed stop. When the danger is passed the button is released, and the friction clutch on the drum is disengaged. The coiled spring releases its stored energy and greatly assists the engine in accelerating. [Sometimes fact overtakes humour; nowadays we call it regenerative braking]. The Grabal No 1 silencer consists of a plain exhaust pipe made of a fully-patented elastic substance, not unlike rubber. Thus, immediately the gases leave the exhaust port the pipe expands just sufficiently to accommodate them, returning to its normal size as each burst passes to the rear. Externally, the effect is like an ostrich eating

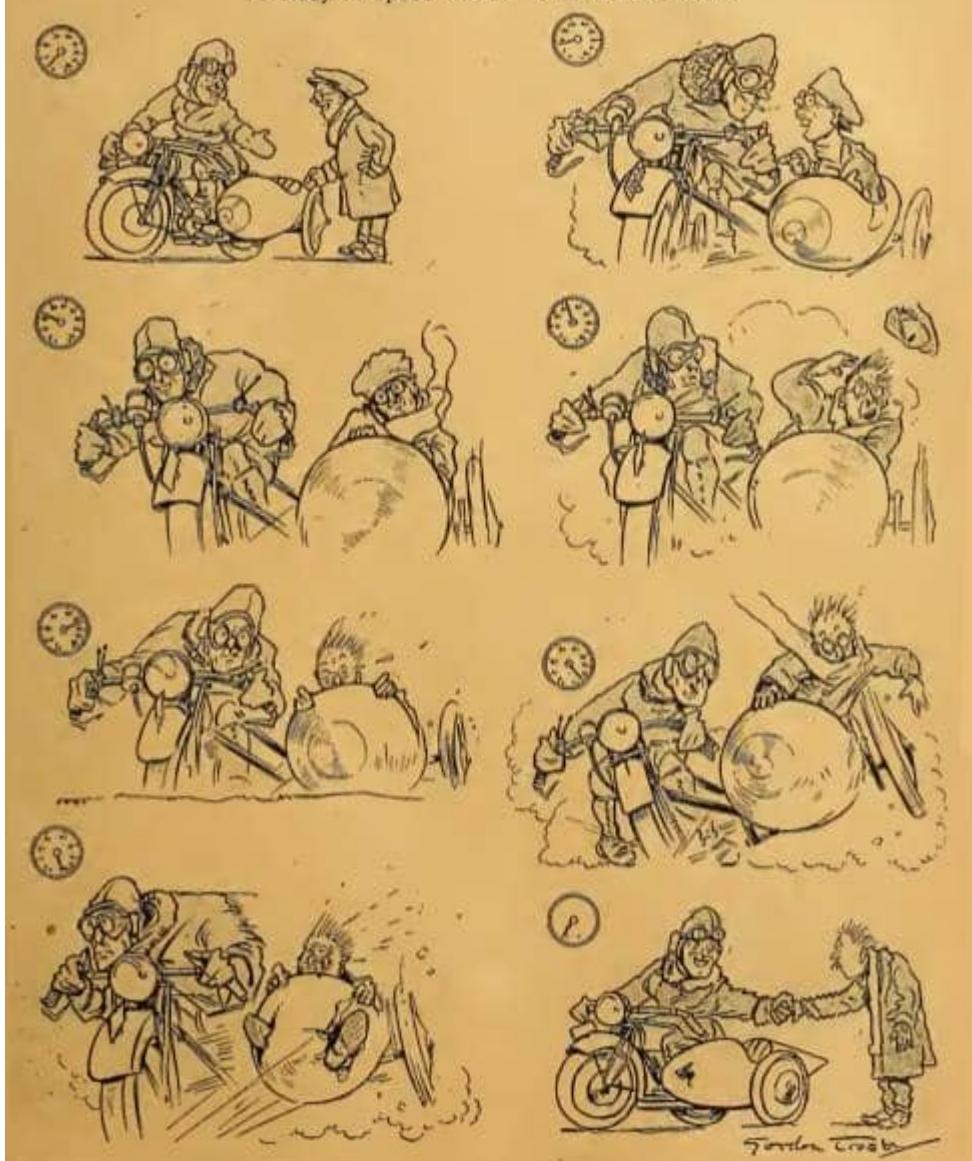


From left: "Diagram showing the action of the automatic gear changer—(left) Machine on level road, lever in top gear; (right) machine on a hill, lever in second gear; neutral is avoided by redesigning the gear box. By this device the energy of braking is stored and given out to assist the machine in its acceleration. Cut-away cylinder showing the Grabal recompressioner in position."

large apples; and the device, instead of magnifying the sound like an ordinary resonant metal expansion chamber, causes silence so complete that it is impossible to tell whether the engine is running or not without watching the pipe very carefully...Then mention must be made of the Grabal automatic gear change. In effect it consists of a weighted extension to the gear lever, sufficiently heavy to move it down one notch on all gradients above 1 in 10 and two notches on 1 in 5 or steeper hills. On the level ground being reached again a reverse action takes place...It would be impossible to describe the full Grabal range in one issue of *The Motor Cycle*, but it may be said that among other epoch-making and revolutionary fitments are such diverse and remarkable articles as collision-proof number plates, mudguards and footrests of rubber, a magnetised carrier for carrying tools and repair outfit accessibly instead of in the old-fashioned tool bag, and a lattice-work type extensible lamp bracket for driving in fog and obtaining a clear view round corners. As we go to press we hear with regret that Mr McCohen has been removed to a private nursing home, but letters addressed care of the Editor will be forwarded in due course."

THE "SUPER-SPORTS" JOY RIDE.

A Study in Speed Faces. By F. GORDON CROSBY.



Seasonal jollity

from the pen of F Gordon Crosby.

GREETINGS



The Editor and Staff of "The Motor Cycle" extend
to all readers—young and old, at home and abroad—
greetings for a Happy Christmas and Prosperous
New Year.

Here's a selection of contemporary ads...

THE BEST OF XMAS PRESENTS IS A Douglas Motor Cycle

It is an outfit and at the same time the source of much health and enjoyment all the year round. The 1½ h.p. Douglas, fully equipped with Lamp, Horn, etc., at £50 is cheaper than pre-war price, and is the best value that money can buy.

It will bring pleasure from the moment I am a Douglas Specialist, and will turn your machine and interests into satisfaction. Call or write to our agents—now supply the special Douglas fitted with Zoom Zoom! Exhaust System, Alloy Air Cooled Valve Caps, Aluminium Combined Footboards and Footrests, Special Valve Seats, Special Pistons, and fully equipped, and GUARANTEED TO DO 55 m.p.h. for £10.

Write me for the 1921 Douglas Catalogue.—You can select a more moderate but very useful present for Douglas riders from the following range of my specialties.

PATENTED TWIN RINGS. Two rings in each groove give more power—perfectly gas-tight joints—prevent overheating as all exhaust goes through—wear indefinitely—sealed on running. Price 12/- each; 2½ h.p. Douglas, 12/- each; 3½ h.p. Royal Ruby, Williamson, and Hunter Twins, 12/- each; 4½ h.p. Sunbeam, Triumph type 1919, H.E.A., New Hudson, Rudge, Peterson, Singer, etc., 12/- each. All Blackburne engines, Triumph type 1919, Rover, Peugeot, Douglas two-strokes, etc., 12/- each. Other sizes quoted for application.

ZOOM! ZOOM! The popular Exhaust System, beautifully made, finished in burnished nickel or copper. A pleasant Zooming note without loss of pressure. Adds points to the appearance of any Douglas. Price 28/- in copper finish, 32/- nickel.

ADDITIONAL POWER may be obtained by fitting special Lightweight Radiated Pistons, fitted with patented twin rings. They are simply wonderful, and every real biker testifies from all classes of skilled riders. Price 28/- per pair, complete with gudgeon, twin rings and taper taps.

THIS BEAUTIFULLY-SHAPED PAN SADDLE with adjustable springs gives you a few natural riding positions and does not feel the ribcage strain. My price 25/- Usual price 35/-

THE TONY COMBINED ALUMINUM FOOTBOARD AND FOOTRESTS beautifully finished—giving a natural riding position. A real "foot-board" for those who like to sit well back, but not too far back. Price 30/- per pair complete.

AIR COOLED VALVE CAPS. My latest are covered by patent. They never blow off and stay in the threads. Absolutely gas-tight. Prevent knocking and sharpens the engine tools. Try them on your 2½ h.p. Douglas, and if you are not absolutely satisfied have your money back. Price 4/- each.

KERSEY VALVE SPRINGS. These springs prevent bouncing, and lightens the work on the cast. They are unbreakable and flexible. For 2½ h.p. Douglas. Pairing 2/- per pair, totalling 1/- per pair. Do not compare them with the cheap springs that are flooding the market.

Ask your Agent for return of Post. 4 h.p. and 2½ h.p. INSTRUCTION BOOKS, 1/- each.

W.G. Coram
(Official Douglas Agent)
140 VICTORIA STREET, BRISTOL
Tel. 3792.

— SEASONABLE — XMAS GIFTS



From Him to Her.
Lady's Fur-trimmed Mourning Hat, in Black or Brown Leather or in Brocade, in the following colours: Tan, Navy, Rose, Sage, Hessian, Light or Dark Grey and Olive.

PRICE 17/6 EACH, POST FREE.
State whether for Small, Medium or Large Head.



From Her to Him.
Gentlemen's Brown Leather Motor Cycle Helmets Fully-lined, as sketch. Note Special Ear Cap which allows perfect protection less enables the wearer to hear distinctly.

PRICE 15/6 EACH, POST FREE.
State Ordinary Hat Size.

Send your order NOW, with Cheque or Postal Order (postpaid) and model preferred.

F. GREY NESBITT & Co.
1, Berners St., Oxford St., London, W.I.

Traders' Note.—Write for Trade Terms for these special Lines & General Price List of Motor Clothing.

"GOOD THINGS" for CHRISTMAS, COMFORT, & PROTECTION

WATERPROOF MOTOR CYCLE SUIT WITH FLEECE LINING.



SPECIFICATION.
MADE from hard-wearing double leather faced material with an interesting or Ringer. Double Breasted Jacket, with all-round Collar and Leather Buttons, large Patch Pockets, and converted collar to button right up to neck, to button with Throat Tab. Wind Gaiter is sleeve. All seams of the suit are rubber cemented and taped with extra material, making the garment absolutely waterproof.

Overall Trouser with spat-shaped leg; wind guards to keep the wind from the leg and boots; fastened with patent close fasteners, enabling the trousers to be pulled off in a moment.

The jacket is fitted with warm and easy Jersey lining, and can be detached when not required. The suit is constructed to fully protect the motor cyclist as well as being WATERPROOF.

Note about waterproofing and drying when ordering.

Suit complete with Jacket (Fleece Lined) and Overalls Without flocks 35/- With flocks 42/-

Suit complete with Jacket (Fleece Lined) and Sections Trouser Without flocks 52/- With flocks 62/-

NO EXTRA CHARGE FOR CARRIAGE.

WATERPROOF TRENCH COAT WITH DETACHABLE FLEECE LINING.

Fig. 1.
SPECIFICATION.
MADE of heavy material, in rubber-faced, with all-round belt and buckle. Convertible collar, wind gaiter in sleeves, and fitted with warm, woolly, detachable fleece lining. An ideal coat for winter cycling, walking, and all outdoor purposes.

This garment is impervious to rain, comfortable and warm for winter wear.

FLEECE LINING CAN BE DETACHED.
PRICE, FLEECE LINED 37/6

Without flocks lining 35/-

Should you prefer to do business by mail, please enclose airmail postage for carriage of a package.

NOTE
SIZES 34", 36", 38", 40", 42", 44", 46", 48", 50".
Double suits can be made in 52" Y.L. and no extra charge made if you require yourself or your representative to do so. We guarantee a perfect fit in every way.

MONEY REFUNDED IN FULL IF NOT PERFECTLY SATIS-FIED & GARMENTS RETURNED TO US IN 7 DAYS.

We are the actual Manufacturers—

Martin Waterproof Co.

205, Oldham Rd., New Cross, Manchester.

MOTOR CYCLE CLOTHING OF DISTINCTION

RITCHIE PATENT SPLIT OVERALLS



TRADE MARK



"TREWSO."

In Two Styles—"TREWSO" and "TAB." Patent No. 10677.

Specially designed to meet the requirements of the business man, doctors, and all those wanting a quick on and off suit without soiling hands or clothes no matter how dirty the weather, and give absolute protection.

"TREWSO" style are fastened with two long springs and tab at knee.

"TAB" style are fastened with four patent undamagable press studs.

Nothing just as good. The world's best in workmanship.

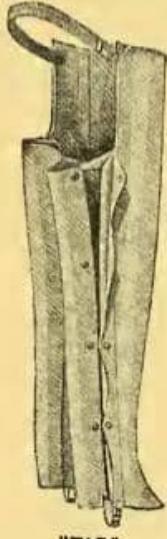
"IXION" in his "Occasional Comments" in "The Motor Cycle" says—"The best of its kind and I know of nothing to beat it."

THE IMPERVIOUS WATERPROOF CLOTHING is guaranteed to keep you dry under all conditions of weather. All proofings guaranteed for two years against decomposition.

The only clothing that stood the test in Copenhagen for the 200 miles Trials in a heavy downpour of rain.

Can be procured from all the principal Rubber Shops and large Retail Warehouses.

Wholesale from all the principal Accessories Factors.



"TAB."

Sole Manufacturers:

The IMPERVIOUS RUBBER Co., Ltd.,

38, FALFIELD STREET, GLASGOW.

Wholesale and Export Only.
Telegrams: "Impervious, Glasgow."

SOLDERING ROTTS THE WIRE.
The Nippa Patent Solderless Nipple. Fitted in a moment without heat.
2 for 1/- — 1/- per doz. post free.

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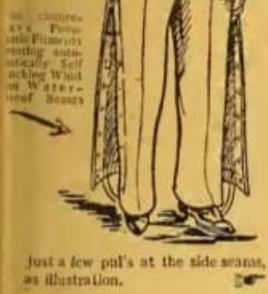
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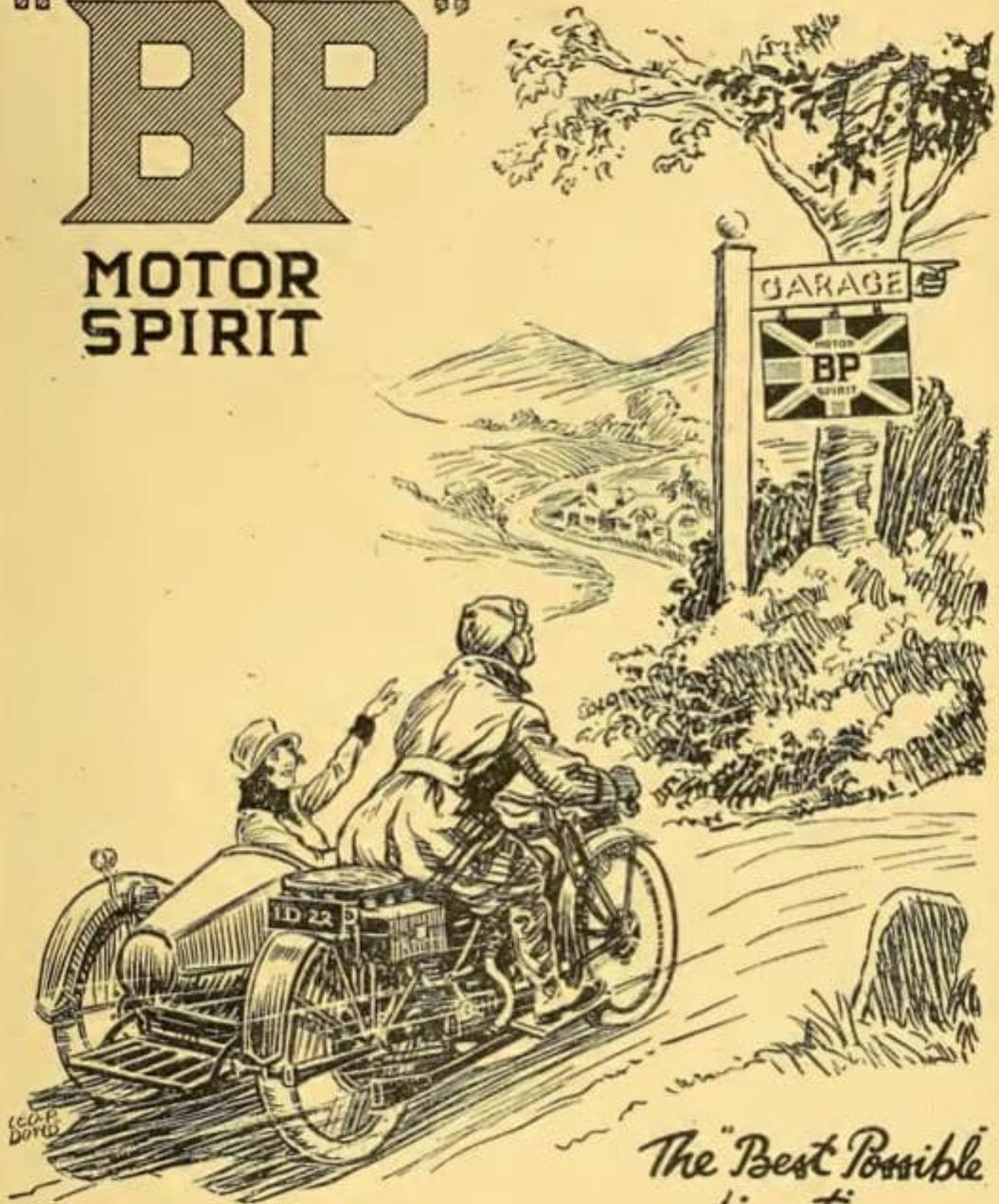


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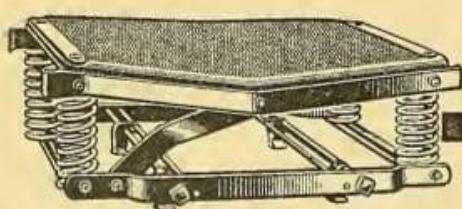
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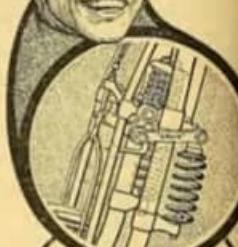
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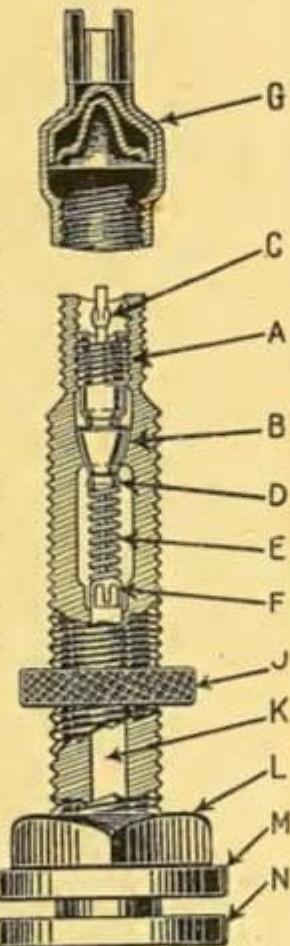
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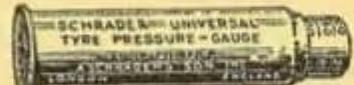


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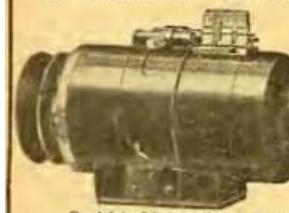
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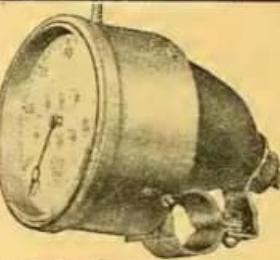
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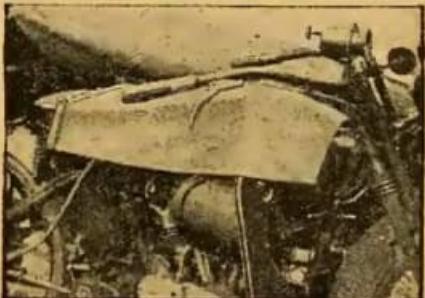
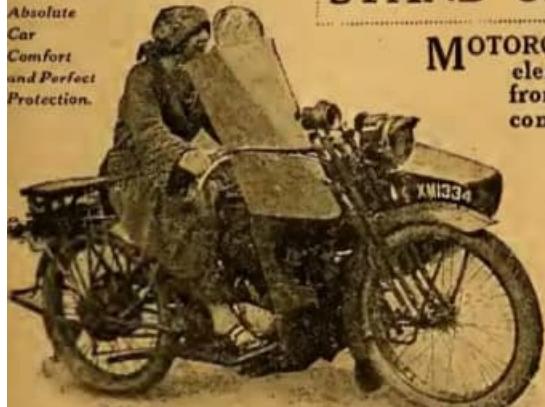
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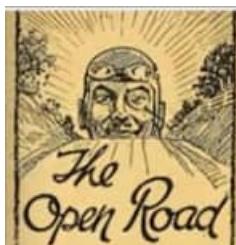
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<p

Have you had yours yet?

If you haven't seen the Burlington Sidecar Catalogue yet, why not drop us a line now? You'll find it more than interesting, describing, as it does, nine sidecar models all "Luxury Products at Economy Prices."

Here below are three of our sporting models:



No. 1.—**SPEEDY MODEL.**
A very light body, specially suitable for light machines. Body weight 35 lbs. Price, complete with waterproof spares £17 10s.



No. 2.—**SPEEDY MODEL.**
A distinctive and sporty model, especially suited to fast road style. Body weight 45 lbs. Price, complete with waterproof spares £24 5s.



SEMI-SPORTS MODEL.
The body is wider in proportions, so will suit fast road style. Body weight 55 lbs. Price, complete with waterproof spares £26

TRADE SUPPLIED

BURLINGTON
MOTOR CYCLE CO., Ltd.
7, South Side, Clapham Common, S.W.4.
Phone: Clapham 4435.
Agents: Burlington Motors, Croydon.
Just by Clapham Common Underground Station.

WHY TRAMP IT?



Ride a Burlington Reconditioned Douglas

VALUE.—There is none finer than the Burlington Reconditioned Douglas. They are built up throughout with new parts—reliable in every detail—and equal in performance to new machines.

ECONOMY.—You'll find the Burlington Reconditioned Douglas is just the machine—at a moderate price and with low upkeep costs.

EASY PAYMENT.—Pay as you ride on a Burlington Douglas. Deferred Payments can now be arranged over a period of 12 or 18 months.

BURLINGTON RECONDITIONED DOUGLASSES.
2½ h.p. 2-speed Model, fully equipped. Cash price £50



4 h.p. 3-speed R.R. and clutch, fully equipped Solo. Cash price 75 guineas. Combination with new Burlington No. 2 Touring Sidecar, complete with spare spares. Cash price 95 guineas.



We shall be pleased to forward you full specification of the above machines on request.

SPARES.—If it's for a Douglas, we have it.

TRADE SUPPLIED.
BURLINGTON MOTOR CYCLE CO., Ltd.
7, South Side, CLAPHAM COMMON, S.W.4.
Phone: Clapham 4435. Wires: Burlington Motors, Croydon.
Just by Clapham Common Underground Station.

Can I send You one?



New Catalogues are now in hand of our latest range of Burlington Sidecars. Herein our nine new Burlington models are fully described and illustrated—it is a catalogue of great interest to every motorcyclist.

Our slogan is "Luxury Products at Economy Prices." Let us prove this claim. We shall be pleased to forward this catalogue by return on receipt of 2d. stamp.



No. 1 **TOURING MODEL.**—A body of clean lines and light construction, with ample boot space in front. Body weight 35 lbs. Price, complete with waterproof spares £15 2s.



No. 2 **TOURING MODEL.**—A model with comfort and strength as its first consideration. Effective anti-shock and adequate legroom. Body weight 45 lbs. Price, complete with waterproof spares £21 7s.



No. 3 **TOURING MODEL.**—An ideal model for high-powered combinations. The tall, strong line up and modern anti-shock give a comfortable ride. Price, complete with waterproof spares £22 10s.

TRADE SUPPLIED.

BURLINGTON MOTOR CYCLE CO., Ltd.
7, South Side, CLAPHAM COMMON, S.W.4.
Phone: Clapham 4435. Wires: Burlington Motors, Croydon.
Just by Clapham Common Underground Station.

IT'S SO SIMPLE



**Purchase
Out of Income!**

(With apologies to Merton, Drap.)

Our system of Easy Payments offers you every facility when buying your machine. It enables you to secure the mount you want and pay in very easy instalments while owning and deriving every pleasure from the machine.

Payments can now be made over a period of twelve or eighteen months. Pay as you ride—write for further particulars.

EXAMPLES:

CALTHORPE.

Cash Deposit	-	£9	9	0
12 Monthly Instalments of	£2	6	8	
or 18	"	£1	12	8

SUN-VITESSE.

Cash Deposit	-	£14	6	0
12 Monthly Instalments of	£3	11	6	
or 18	"	£2	9	0

3½ h.p. SPORTS DOUGLAS.

Cash Deposit	-	£29	18	0
12 Monthly Instalments of	£7	9	6	
or 18	"	£5	2	3

The above are, of course, only a few examples. We shall be pleased to supply practically any make of motor cycle on the above terms.

Spares—if it's for a Douglas—we have it.

BURLINGTON

MOTOR CYCLE CO., Ltd.
7, South Side, Clapham Common, S.W.4.
Phone: Clapham 4435.
Wires: Burlington 4435.
11/127 Burlington Motors, Croydon.
Just by Clapham Common Underground Station.

There's no mistaking

The fact that we have got the goods. Here are a few examples—metal spares at very prices. Let us know your requirements—then we will send you what you want.

SIDECAR FOOTREST. *Bentley*, Price 4s.

JACKSON'S IMPERO. We are stockists for the wonderful preparation of preserving, pickling, & canning. Let us send you descriptive leaflet.

AEROMED TOOL BAG. Work Shop Technology. Contains with all necessary clips. Large size for 2 h.p. Douglas, 11s. Smaller, 2 h.p. Douglas, 8s. Smaller size for Triumph, 6s.

TRIUMPH CLUTCH PEDAL. Converts your clutch to heel action. It will fit any standard single or double clutch to 11 by any standard gear box. Price 4s.

LUGGAGE GRID. and specially made to fit in a sidecar. Price 14s.6d.

TRADE SUPPLIED. Spares—if it's for a Douglas we have it.

BURLINGTON MOTOR CYCLE CO., Ltd.
7, South Side, Clapham Common, S.W.4.
Phone: District 6427.
Wear: Burlington Motor, Clapham.
Just by Clapham Common Underground Station.

SAFE INVESTMENTS

Below are a few of our spare specialities—all of them necessary accessories for comfortable and reliable motor-cycling.

To Settle your Douglas Clutch Worries. We could supply you with a large quantity of these sets, all of which have given satisfaction. We have also supplied a large number in the G.P.O.

No more broken Draw-bars. We shall be pleased to supply you with details of the new series of sprung draw-bars.

Stop, these Corks, are a triumph. They are easily removed and mounting to handle bars.

Burlington Support Stay. Fix 4 lbs. Deposit 1s. Postage 1d.

P. & H. Sidecar Lamp, No. 129. Electric, with N.E. Lamp, 20s. Our cheapest price, 17s. G.W.

BURLINGTON UNDERSHIELDS. Enclosed shield with storage box of 1 h.p. and a 2 h.p. Douglas, 8s. each. Postage, 1s. 6d. (by air mail)

Spares—if it's for a Douglas we have it. TRADE SUPPLIED.

BURLINGTON MOTOR CYCLE CO., Ltd.
7, South Side, Clapham Common, S.W.4.
Phone: District 6427.
Wear: Burlington Motor, Clapham.
Just by Clapham Common Underground Station.

Something Good!

To Suit your Pocket

Burlington Douglasses are now supplied on an Easy Payment System which extends over a period of 12 or 18 months. Don't let your capital be stretched—but pay in easy instalments while you ride. For reliability and smart appearance you can't beat a Burlington Royal-Tribune Douglas. Write for proposal form.

Burlington Douglasses.

And what they cost on our Easy Payment System.

2½ h.p. 2-speed Model, fully equipped.

Deposit	£12 5 0
12 Monthly Instalments of	£3 4 3, or
18	—
	£3 5 2.

4 h.p. 3-speed N/S and clutch, fully equipped

Deposit	£29 18 6
12 Monthly Instalments of	£5 4 3, or
18	—
	£5 5 3.

Combination with new Darlington No. 2 Tourist Sidecar, complete with storm screen.

Deposit	£29 16 6
12 Monthly Instalments of	£5 9 3, or
18	—
	£5 10 6.

Spares—if it's for a Douglas we have it. TRADE SUPPLIED.

BURLINGTON MOTOR CYCLE CO., Ltd.
7, South Side, Clapham Common, S.W.4.
Phone: District 6427.
Wear: Burlington Motor, Clapham.
Just by Clapham Common Underground Station.

BERTIE'S LATEST PRODUCTIONS

Are all illustrated in his New Sidecar Catalogue. Why not send for one now?

TWO-SEATER MODEL.

A four-wheeler body in which drivers have not been accustomed to passing through narrow openings. Can be used as a single-seater or a sidecar.

It is here shown with side panels open with disappearing windscreen in position for rear passengers. Apply same price as sidecar model with disappearing screen £28 18 6.

P. & H. Streamline Sidecar Lamp. Electric with P. & H. lamp, 20s. Our cheapest price, 17s. G.W.

Tire Repairing Tools (W.D.J.). Glycerine and oil, leather solution and French chalk, 4 "John Bull" patches, spirit lamp, leather, paper, pen, pencil, India ink, 1 lb. sugar, 1 lb. cork.

Spares—if it's for a Douglas we have it. TRADE SUPPLIED.

BURLINGTON MOTOR CYCLE CO., Ltd.
7, South Side, Clapham Common, S.W.4.
Phone: District 6427.
Wear: Burlington Motor, Clapham.
Just by Clapham Common Underground Station.

**This 2 $\frac{3}{4}$ H.P.
BURLINGTON
DOUGLAS**

FREE
Great New 'Burlington'
Competition.

To further popularise our well-known sidecars, we are instituting the following interesting competition, in order to obtain a really good design for those sidecars.

NOTE.—The type of design required is something similar to "Luxury Products of Economy Prices," or "Best on the Long Run."

All that is necessary is to send in your suggestion for a design accompanied by an order for goods to the value of not less than £10. Every reader may send in as many suggestions as he wishes, providing such goods are enclosed by an order for the value of not less than £10. Hence those sending an order for £10 worth of goods are entitled to send two suggestions, and so on.

Messrs. The Commercial Publishing Company have kindly consented to publish the results. The selection will be considered final. An alphabetical List of spares and useful accessories will be issued under our advertisement in the Miscellaneous column.

**SEND YOUR
SUGGESTIONS EARLY.**

BURLINGTON
MOTOR CYCLE CO., LTD.
1, South Stn., CLAPHAM COMMON, S.W.A.
Phone: Dulwich 2127. Wires: Burlington Motor
Cycle, Captain.

**WHAT'S YOURS
?**

**This 2 $\frac{3}{4}$ h.p.
BURLINGTON
DOUGLAS**

FREE

Great New 'Burlington' Competition.

What you send in your suggestion for a design for our sidecars.

To further popularise our well-known sidecars, we are instituting the following interesting competition, in order to obtain a really good design for those sidecars.

NOTE.—The type of design required is something similar to "Luxury Products of Economy Prices," or "Best on the Long Run."

All that is necessary is to send in your suggestion for a design accompanied by an order for goods to the value of not less than £10. Every reader may send in as many suggestions as he wishes, providing such goods are enclosed by an order for the value of not less than £10.

SEND YOUR SUGGESTION EARLY

Let our Representatives, who will be in attendance at the Show, advise you on your mount for next year. We can supply any machine for each or different requirements.

BURLINGTON
MOTOR CYCLE CO., LTD.
1, South Stn., CLAPHAM COMMON, S.W.A.
Phone: Dulwich 2127. Wires: Burlington Motor
Cycle, Captain.

**THE
GENERAL
(SELECTION)**

"Burlington sidecars is such as to meet all requirements. For distinctive design and excellence of workmanship they are without equal. Our Art Deco book describing our nine different models will be mailed you upon request.

SEMI-SPORTS MODEL

In this model we have endeavoured to provide the comfort of a touring sidecar with the speed of a racing sidecar. It is impossible with an ordinary photograph to do justice to the beauty of line and pleasing contours of this body. Nicely upholstered, leather lined, with a large luggage box, and with detachable saddle and an excellent strong back, it is the striking epitome of elegance. The large rear locker is provided with storage for a coat and a hat, and is accessible without disturbing the passenger.

Approximate weight of body & chassis.

Underframe type, four chain drive, single motor with gearshift, sidecar girder, enclosed with easily detachable wheel, with wide mudguards, 28 in. wheel, fitted with tyre 26 in. by 2½ in. Other sizes to order.

Price, complete with instrument panel, £26.

We can also supply this body with our light-weight aluminium sidecar for machines of 2½ h.p. to 3½ h.p.

TRADE SUPPLIED.

Applications for agencies are invited.

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1, South Stn., CLAPHAM COMMON, S.W.A.
Phone: Dulwich 2127. Wires: Burlington Motor
Cycle, Captain.

**BURLINGTON
DOUGLAS
FREE**

Walk up! Walk up!

Closing Date—MONDAY, DEC. 12.
Results published in "The Motor Cycle," Thursday, in December 23.

Send your suggestions now for the

**GREAT
BURLINGTON
COMPETITION**

in which we are presenting this

2½ h.p. Burlington Douglas

Fully Equipped

FREE

To further popularise our well-known sidecars, we are instituting the following interesting competition, in order to obtain a really good design for those sidecars.

NOTE.—The type of design required is something similar to "Luxury Products of Economy Prices," or "Best on the Long Run."

All that is necessary is to send in your suggestion for a design accompanied by an order for goods to the value of not less than £10. Every reader may send in as many suggestions as he wishes, providing such goods are enclosed by an order for the value of not less than £10.

Jackson's—Importers.

Trade, £1.00 per £100.00
£1.00 per £100.00

SPARES— if in for a Douglas, we have it.

TRADE SUPPLIED.

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1, South Stn., CLAPHAM COMMON, S.W.A.
Phone: Dulwich 2127. Wires: Burlington Motor
Cycle, Captain.

**BERTIES GOT
THE GOODS**

for 1923. If it's a Motor Cycle, we have it. Order your new mount now. Cash or Deferred Payments.

Streetside Sidecar. Single seat, 2½ p. engine, 2½ h.p. Complete with H.m. Compt. set. £12.50.

Sidecar Fronts for
going to dinner. Price £1.
Cantilever set. £1.

ARMOURED TOOL
BOXES FOR
SIDE FRONTS.

Black Cat Sidecar. Price £1.
Front set. £1.00
Black Cat Sidecar. Price £1.
Front set. £1.00
Black Cat Sidecar. Price £1.
Front set. £1.00

BLACK CAT MARCOT.
Bicycle Side Fronts. Price £1.
Front set. £1.00
Mirricle Oil—The Upper
Lubricator. Price £1.
Front set. £1.00

Jackson's—Importers.

Trade, £1.00 per £100.00
£1.00 per £100.00

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MOTOCYCLETTE LEVIS

MOTEUR
FOURCHE
ROUES
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RÉSERVOIR
TRANSMISSION :

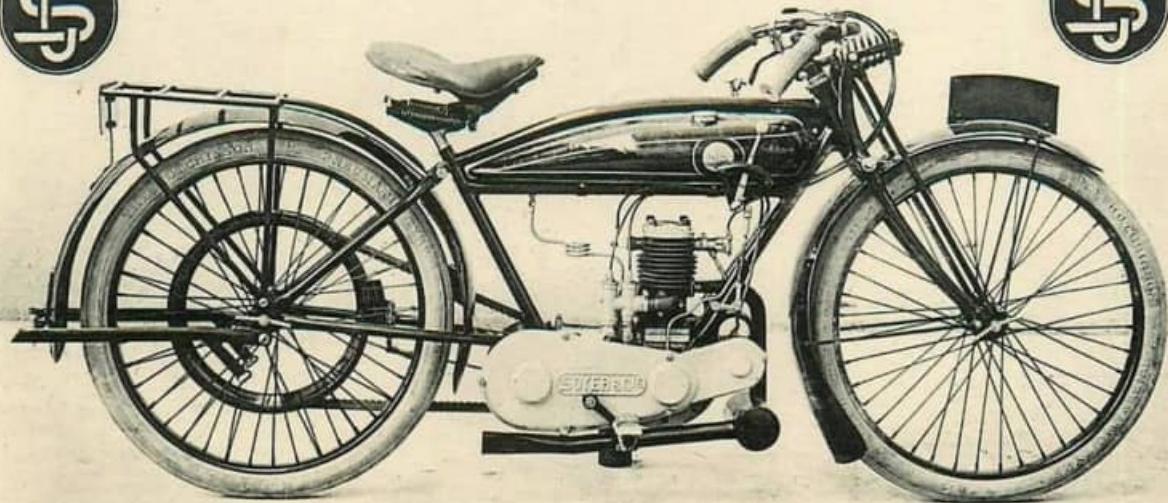
2 temps, 2 1/4 HP. 62 x 70 m/m.
élastique
de 600 x 60
50 kilos
contenant 7 litres essence, 2 litres huile
Chaine et courroie

PRIX
Modèle T.T.
sans boîte

L. PSALTY & DELABRE. Agents Généraux pour la France
50 Rue Brunel, Paris (17^e)
Téléphone : Wagram 24-66

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La Reine des 2 Temps — Simple - Robuste - Élégante



Moteur 2 Temps - 2 HP 1/2 - Boîte de vitesses - 2 vitesses
Fourche très élastique - Moyeux à broche - Gardes-boue extra larges

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Tour de France Motocycliste
3.700 KILOMÈTRES

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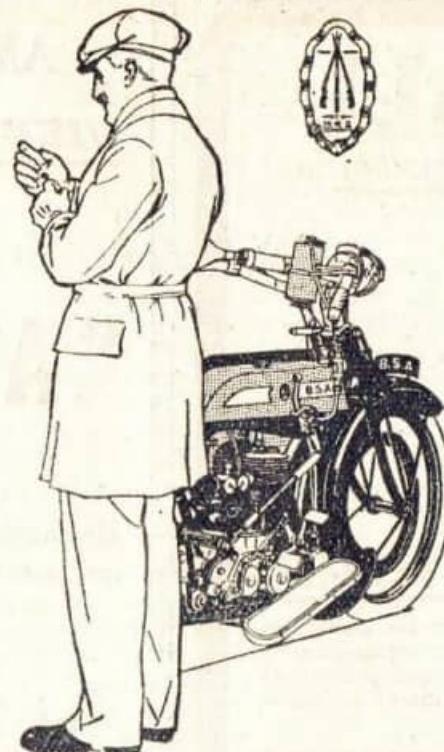
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Montée par **BERRENGER**
Agent B. S. A. à ROUEN

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sans AUCUNE PÉNALISATION MÉCANIQUE
ni HORAIRE et se classe **SEULE**

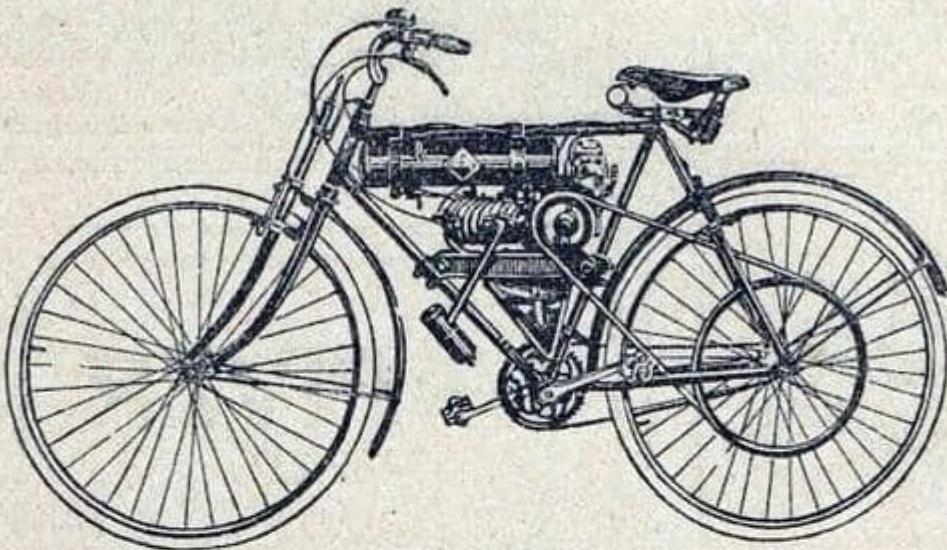
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DE 750 CENT.³

AGENCE DIRECTE B.S.A.
Établis" **BROWN** BROTHERS
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<p>Moto "EXCELSIOR" - 2 cil. - 8/10 HP. - L'INSUPERABILE</p>	<p>"EXCELSIOR" CHICAGO LA SUPERIORE DELLE POTENTI 2 cilindri - 10 HP</p>
<p>Moto "ARIEL"</p> <p>monoc. 3 1/2 HP - 4 1/2 HP 2 cilind. 6 7 HP - 8/10 HP</p> <p>LA GRAN MARCA DI RESISTENZA</p>	<p>Moto "MARTINSYDE"</p> <p>3 1/2 HP - 2 cilindri 6 HP - 2 cilindri</p> <p>LA RIVELAZIONE PER IL 1922</p>
	<p>"ARIEL" a 1 e 2 cilindri MARCA DI ASSOLUTA FIDUCIA</p> <p>AGENTE GENERALE PER L'ITALIA MAX TURKHEIMER - MILANO (9)</p>

LA FAMOCYCLETTE



Bicyclette, cadre renforcé et surbaissé

FOURCHE ÉLASTIQUE SELLE SOUPLE

En ordre de marche : 1.420 fr.

MOTEUR FAMO

2 temps — 1 HP 1/2 — Alésage 53 — Course 60

Régime 2.500 tours

SE MONTE EN 2 HEURES SUR TOUTES BICYCLES

Livraison à vue : 920 fr.

AGENCE POUR LA FRANCE

E. R. CLOSSET, 81, rue de Longchamp
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TÉLÉPH. : PASSY 92-43

DANS LE

Tour de France Motocycliste

3.700 KILOMÈTRES

LA MOTO
MONO
5 HP
DE SÉRIE

B.S.A.

Montée par **BERRENGER**

Agent B. S. A. à ROUEN

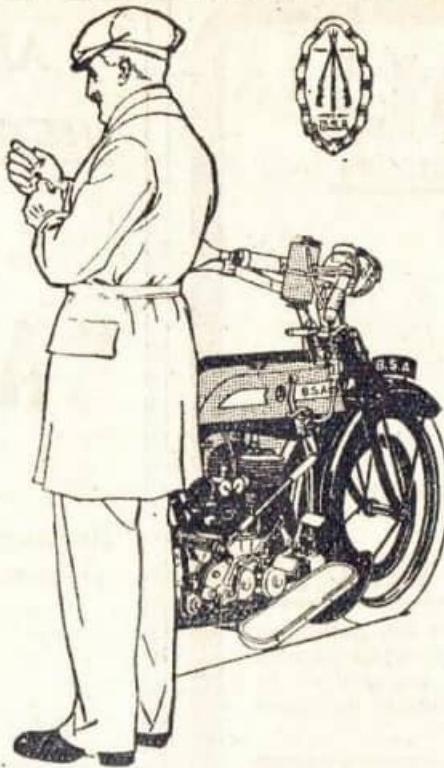
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PREMIÈRE

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DE 750 CENT.³

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BORDEAUX-PARIS 1922

Catégorie amateurs
1^{er} Hersard, sur bicyclette

GRIFFON

Concours du Touring Club de France motoclette GRIFFON gagnante d'une Coupe de Régularité

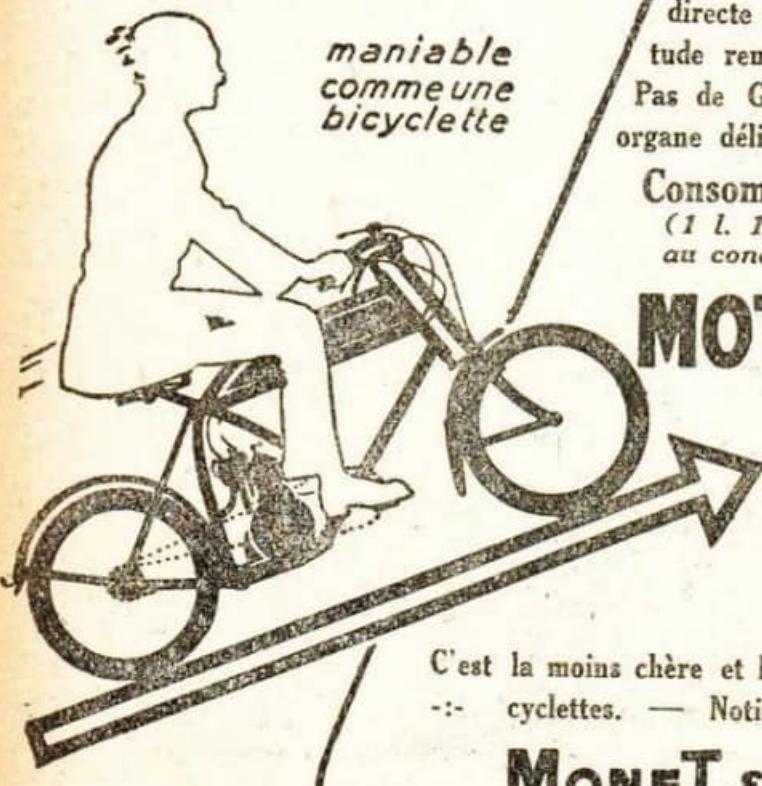
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Bol d'Or : 1^{er} Griffon


CYCLES
&
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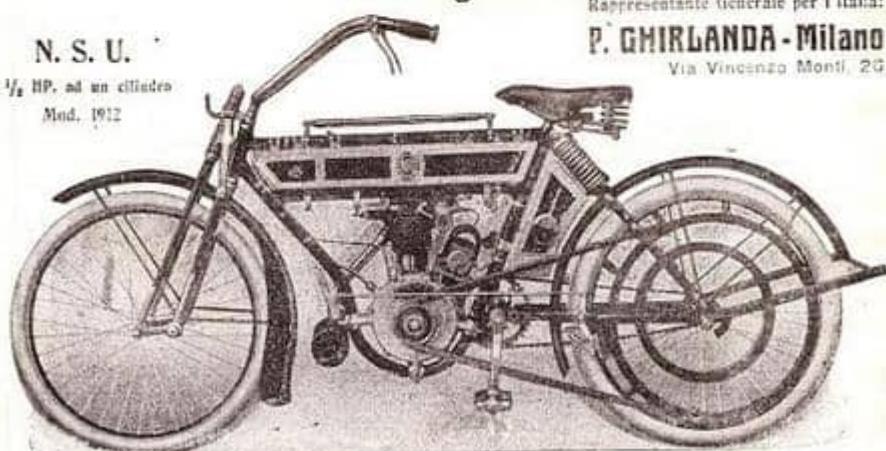
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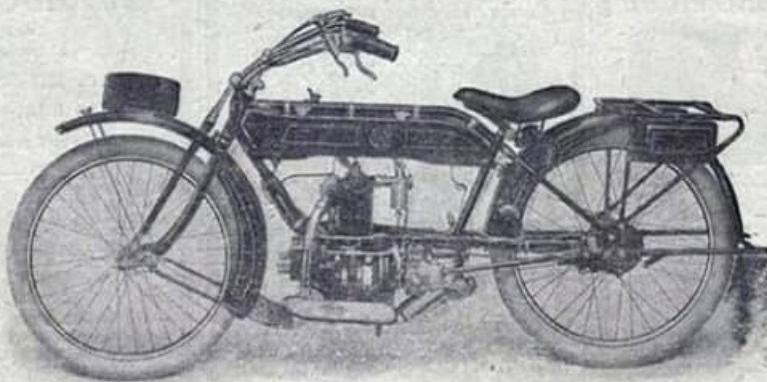


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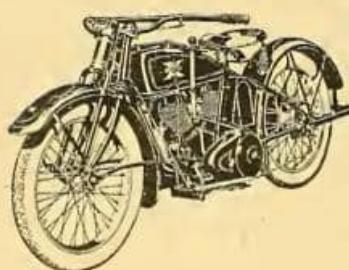
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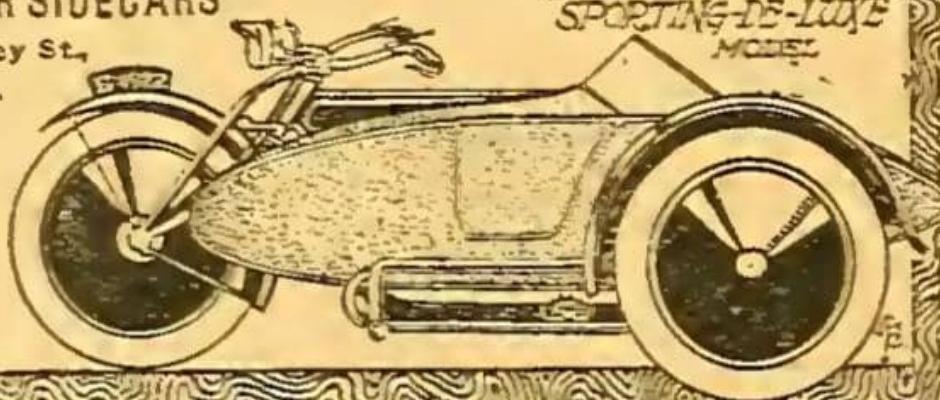
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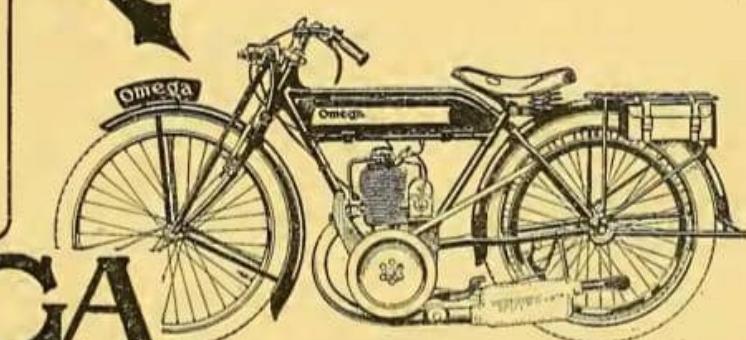
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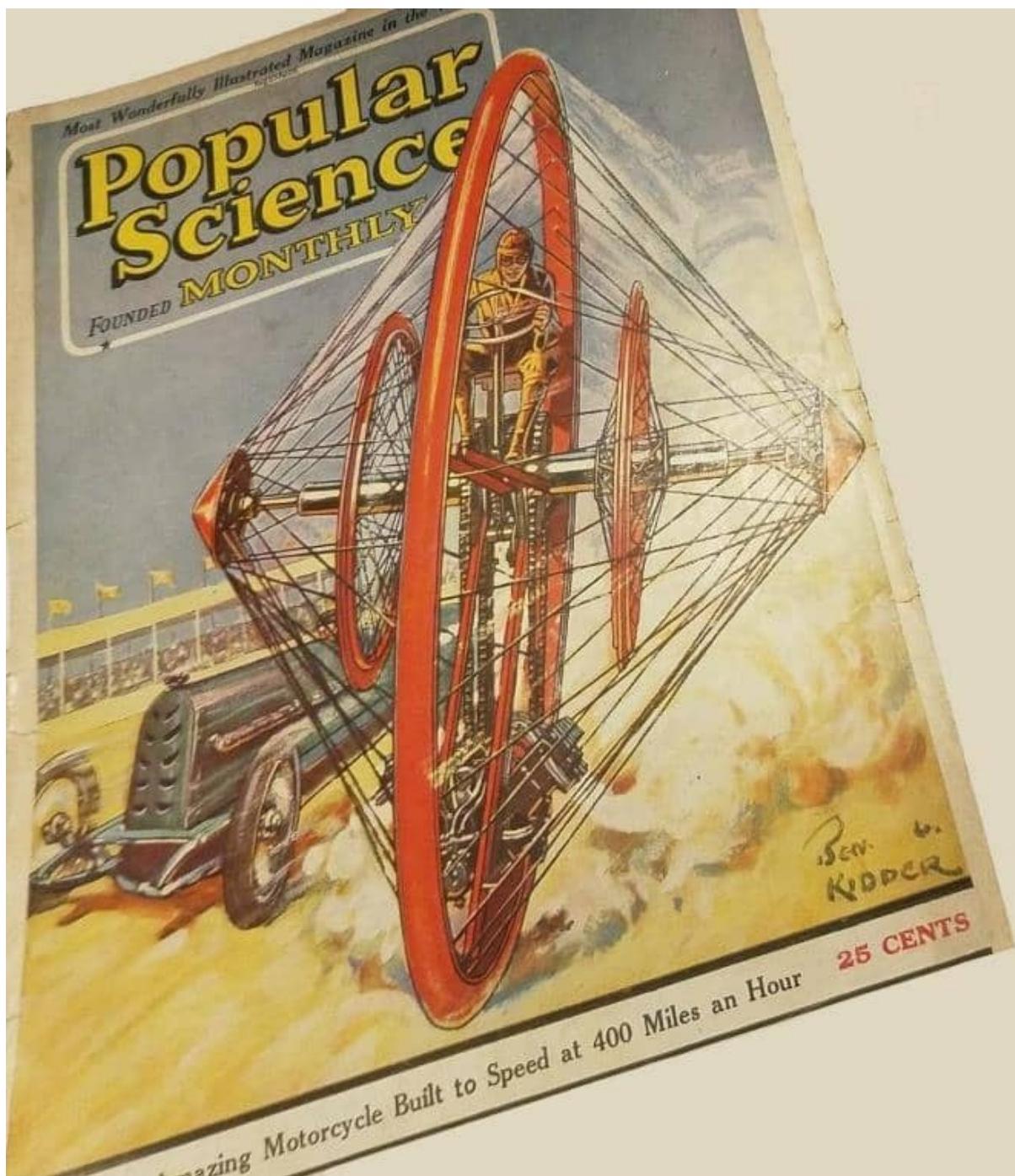
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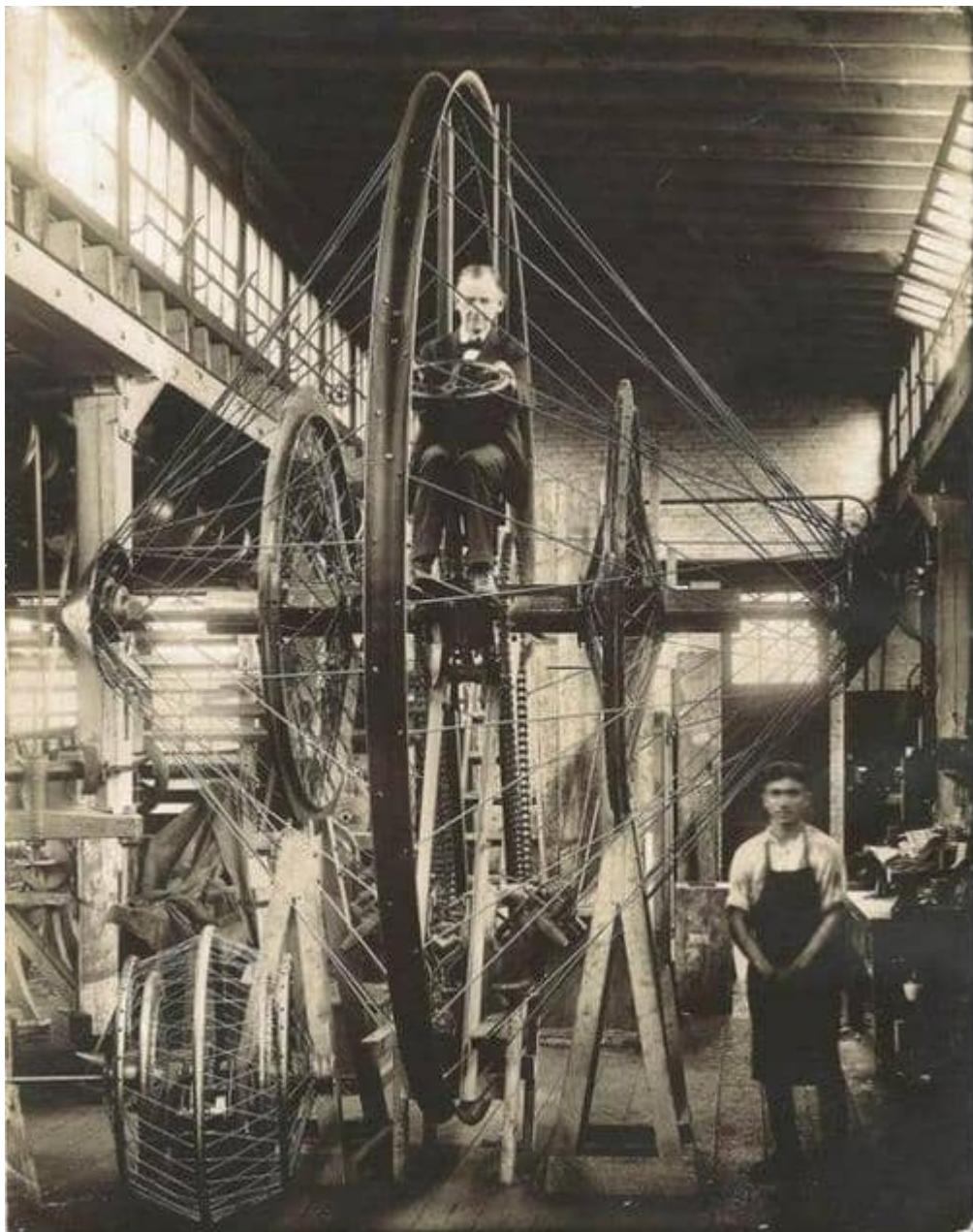
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1923



An American whimsy: "How the giant gyroscopic wheel is pictured by its inventor, Prof EJ Christie, as whirling over a speedway course at 400mph, flashing past the speediest racing cars."



...but maybe

not just a whimsy. Yes, the professor built his monowheel. It stood 14ft tall with a width of 7in; it comes as no surprise that producing a 168x7in tyre was a major undertaking in its own right. Fitted with a The Sturtevant Model 5A V8 aero engine (rated at 210hp) it weighed in at 2,400lb, in theory it could be steered by moving the pair of 500lb gyroscopes. However there's no evidence that it ever took to the road, which is probably a Good Thing.



Keeping the monowheel company in the States: "Steam-driven motorcycle which can develop a maximum speed of 70mph. (Right) The designer's first attempt at a steam engine for a bicycle, showing the friction drive."



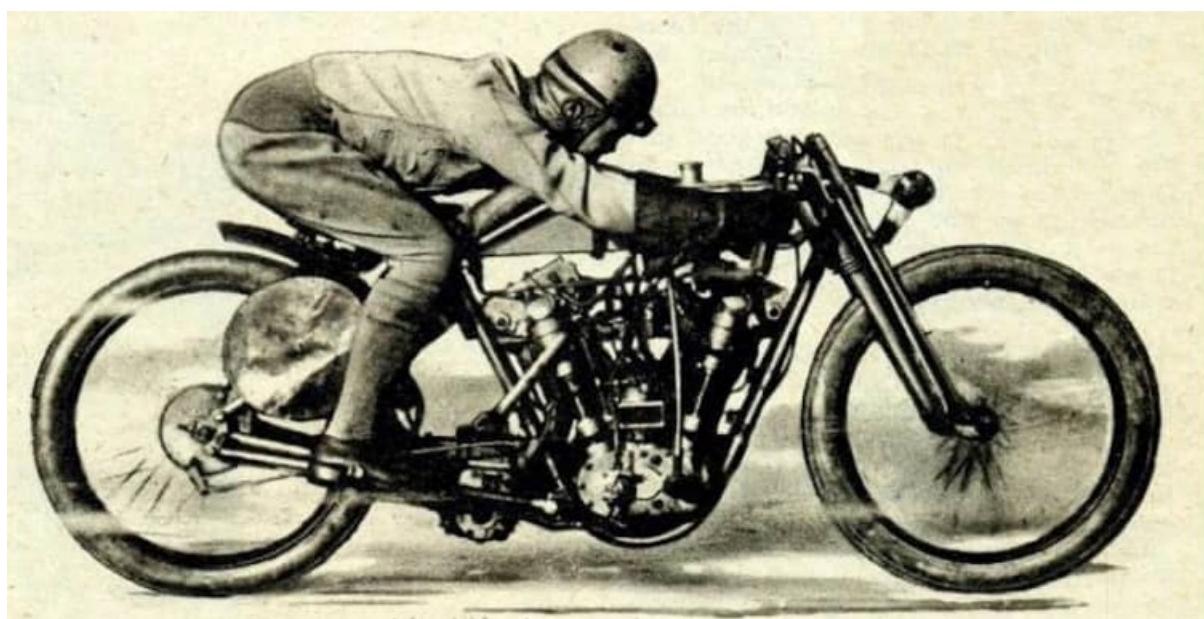
Mind you,

the Yanks could also switch from the ridiculous to the sublime. Charles 'Red' Wolverton rode a four-pot Ace XP-4 along Roosevelt Boulevard near Philadelphia at 129mph to claim a world record. Then he bolted on a sidecar and did 107mph. Ace offered a \$10,000 bounty to anyone who could go faster. No one did.

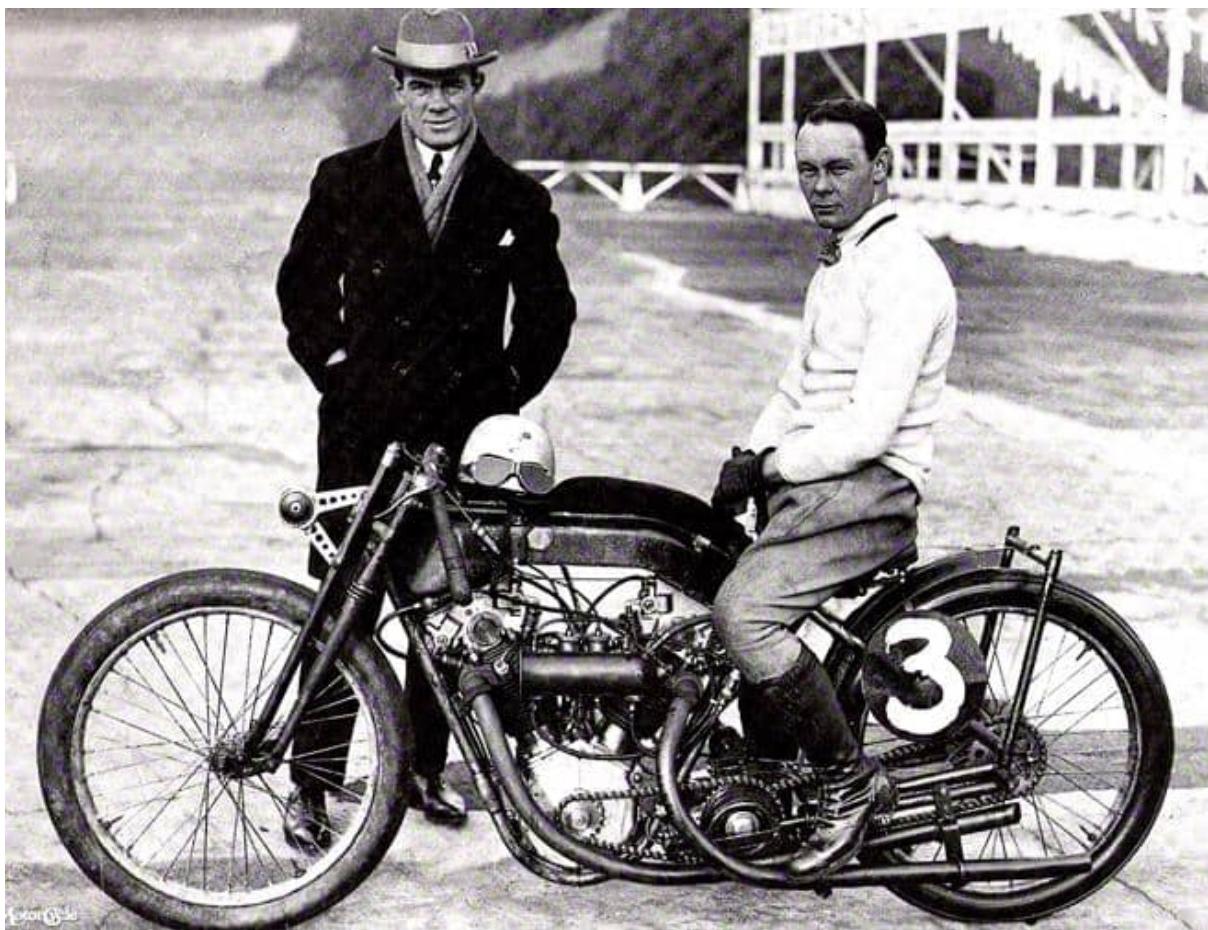
BROOKLANDS STAGED A 200-MILER; Bert Le Vack won the 350 and 1000c classes for New Imperial and Brough Superior. The track also hosted two record attempts. Freddie Dixon did 106.8mph on a 989cc Harley, then CF Temple brought the record back to Europe, squeezing 108.5mph from his 996cc British Anzani. George Brough wasn't going to take that lying down. He hired Le Vack; they went to Arpajon and raised the bar to 118.98mph.



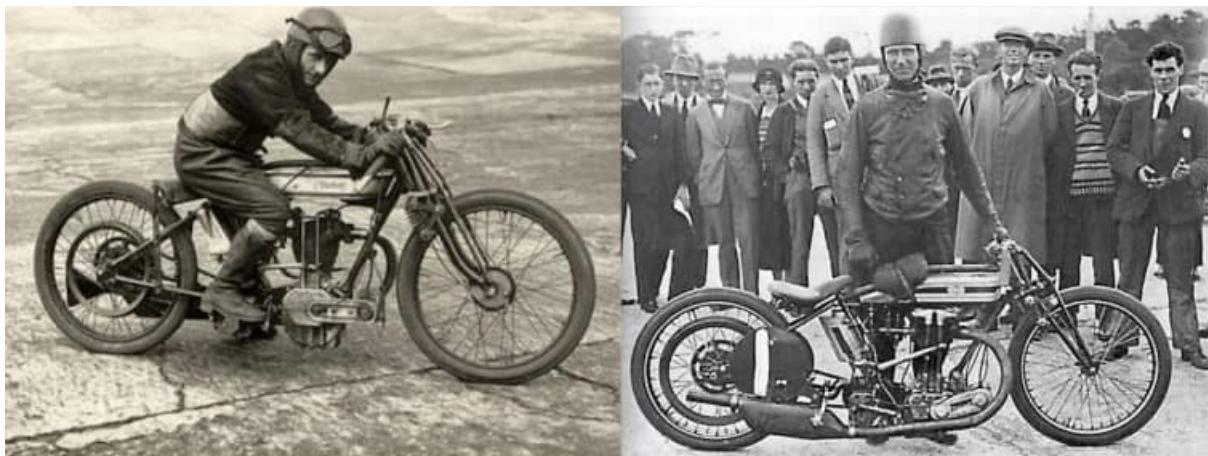
Ace fast...Anzani faster.



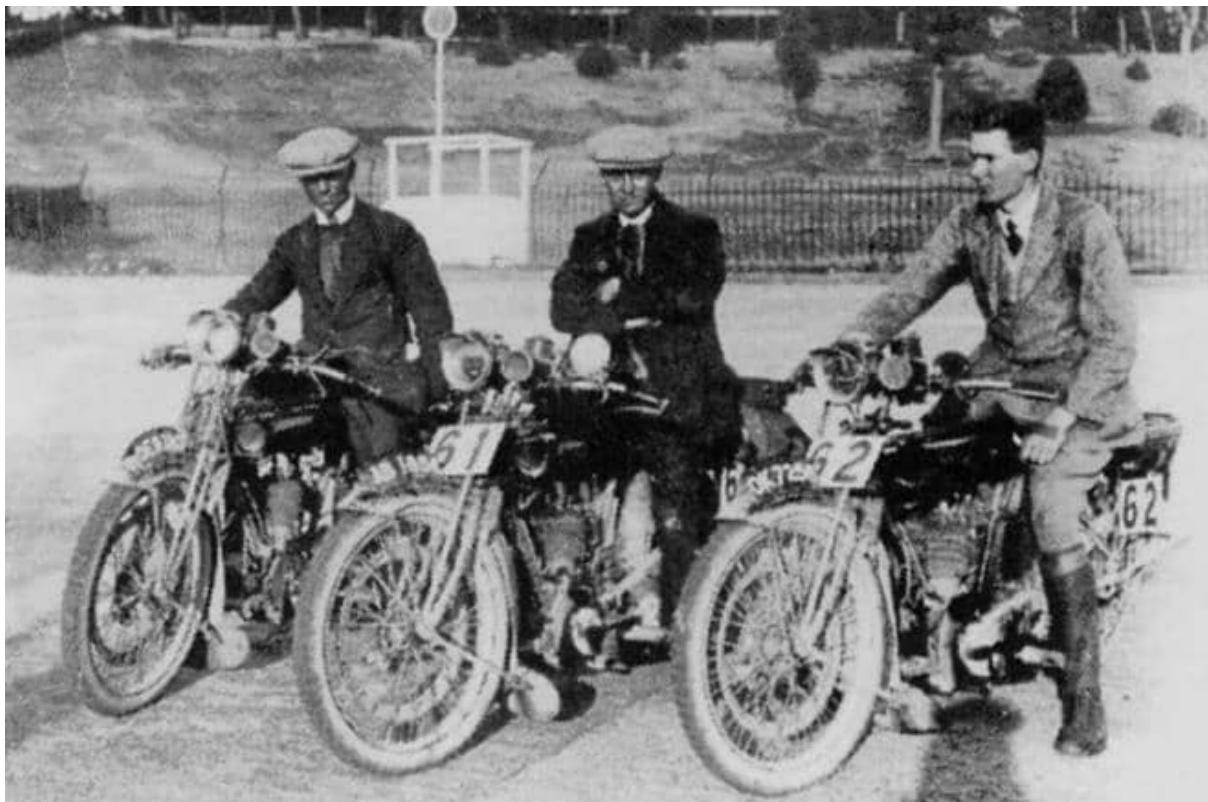
Claude Temple on the OEC Temple Anzani.



Here Temple is pictured at Brooklands with Hubert Hagens, the engineer behind the magnificent 1,000cc ohc twin built by the British branch of the French Anzani Moteurs d'Aviation.



The British 500cc one-hour record was taken by A Denly on the potent ohv Model 18 Norton—he broke the 80mph barrier at 82.66mph and almost immediately raised it again, to 85.58mph. (Right) Victor Horsman promptly retrieved the record for Triumph at 86.52mph, using a two-valve head of his own design in place of the four-valve Ricardo.



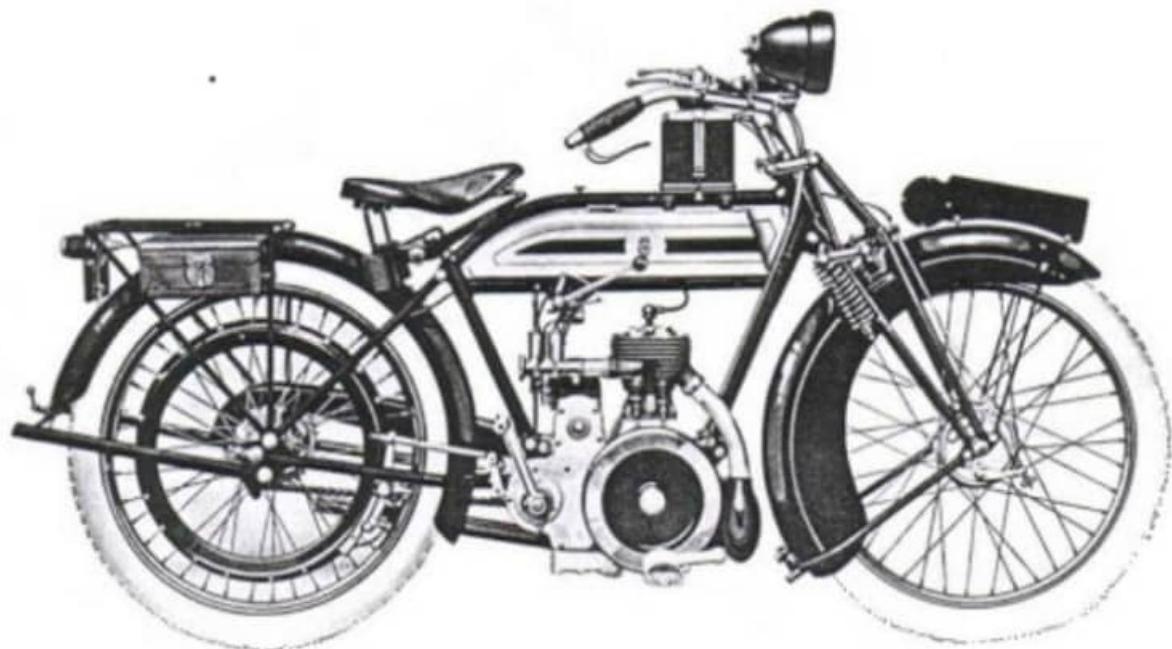
The original caption on this picture simply reads “The Ariel team at Brooklands”.

ALFRED SCOTT DIED OF PNEUMONIA, aged just 48. As well as his revolutionary two-stroke twin-cylinder water-cooled motorcycle, he is generally credited with the invention of the kickstart. His patents covered everything from a triangulated frame to rotary induction valves and unit construction.

SADDLE TANKS WERE becoming more common; marques to adopt them included Coventry-Eagle, Brough Superior, Cedos and Mars.

AMONG THE 1923 SEASON'S must-have goodies were straight-through copper exhaust pipes. One example, made just for Duggies, was marketed as the Zoom-Zoom, promising “no back pressure, pleasing note, improved appearance” (with regular polishing, no doubt).

TRIUMPH'S 350CC THREE-SPEED Model LS (for Light Solo) was unique in the company's line-up in that it came with unit-construction and an engine-driven oil pump. The company had just started to produce cars and this seems to have influenced the design. The driveline was certainly state of the art; however roadtests in the Blue 'Un and Green 'Un agreed that the footrests were too far forward; the wide handlebars hit the rider's knees when attempting to turn; the front brake would not hold the bike on a rising slope and a foot had to be lifted from the footrest to operate the rear brake. Overall it was not a pleasant machine to ride and was soon withdrawn.



Triumph LS: an oiltight, unit-construction engine was let down by poor ergonomics.

WHAT IS BELIEVED TO BE the first motorcycle football match was played on Good Friday at the well established Richmond Meet, hosted by the Middlesbrough Club. Legend has it that the idea came from a committee member called Freddie Dixon. Yes, *that* Freddie Dixon. As the sport caught on the club drew up rules that were adopted throughout the empire. [Historical footnote: the first game was enlivened by the presence of one George Butt Craig who turned up in “riding breeches, stockings, a jersey with a black and red vee-shaped stripe on the upper portion, and a bowler hat from which the crown had been removed and on which the rim was worn upside down”.]



Same year,

different pitch. These chaps are having a kickabout at Crystal Palace.

EXACTLY 100 YEARS AGO as I write this (on 15 December 2023) a speedway race was staged at Maitland Showground in New South Wales’ Hunter Valley. Speedway fans should raise a glass

Johnnie Hoskins, a Kiwi who was in West Maitland because, according to Jennifer Buffier of the Maitland and District Historical Society: "He was broke in Sydney, he had a few bob in his pocket, he plunked it on the counter at Central Station and said something like 'give me a ticket to wherever this will take me'." Hoskins got a job as secretary of the West Maitland Agriculture Society and was expected to increase its membership. Ms Buffier reports: "He tried many events during his first year and nothing was really working. He proposed motorcycle racing at the showground, but the idea was initially rebuffed by the committee. As a last resort he got some of the boys who rode motorbikes together on a quiet Sunday morning and decided to race on the [showground's] sacred trotting track. Because of the large crowd that was drawn in, committee members agreed to host a proper race event at the showground. The event saw a huge crowd and, due to popular demand, weekly race meets were held at the showground thereafter. What we had was the consistency of weekly races and we paid regular prize money so the guys could actually turn professional." *The Maitland Daily Mercury* reported: "Motor cycle races will be a novel feature of the sports carnival to be held on December 15 on the Show Ground. The track is in splendid order, and it is expected that over 40 entries will be received for the different motor cycling events. This will be the first time that motor cycling races have been held on the Show Ground, and the events should therefore prove of great interest." Three years later Hoskins was promoting speedway at the Sydney Showground; in 1928 he headed for Blighty...



Allan Roper on the Duggie he rode at that historic speedway meeting in 1923.



This crowd at the Maitland Showground inspired the organisers to stage regular speedway meetings.

HERE'S A GOOD YARN from *The Perth Daily News*, reproduced from *Vintage Chatter*, the excellent magazine of the Vintage MCC of Western Australia: "The two overland cyclists, Messrs CV Watson and A Grady, members of the Coastal Motor Cycle Club, have returned home after securing the honour of having completed the first successful attempt that has ' been made by motor cyclists to accomplish the long journey from Perth to Adelaide. Messrs Watson and Grady, who are young men, traversed the coastal route via Eucla, using an 8hp BSA motorcycle...they covered 1,952 miles in 154.25 hours, which they regarded as fair average travelling. Their longest day's run was 208 miles, while on another day they did 196 miles. Still another good day's run was 194 miles. The engine withstood the severe test over rough roads and beaten tracks remarkably well. 'Not once did we have to decarbonise the engine, or was a spanner required at any time on any mechanical part,' remarked Mr Watson. Referring to the trip, Mr Watson said that all went well until they had passed through Norseman. They then got on to the wrong track, and had to return on low gear. That delayed them three days. In the Nanwarra drift sands their progress was so slow that only 15 miles was registered in 12 hours. In one part of the journey they were for two days without water, when they were fortunate enough to strike a workman's camp. It was not until they had crossed the South Australian border that wet weather was experienced. The machine and side car were at times coated with mud, and as the vehicle had no mudguards both he and his comrade were most uncomfortable. The road and tracks in places, were in a bad state. Before reaching Port Augusta, they encountered a claypan, which held them up for four hours. Messrs. Watson and Grady spoke highly of the hospitality accorded to them by people along the route. 'Now that we know the road, we intend to make another attempt,' said Mr Watson. The overlanders returned to Western Australia by train."



Watson and Grady with their 8hp Beeza combo which carried an eight-gallon cylindrical fuel tank on the carrier: "Biscuits and tea will be the chief standby of the travellers."

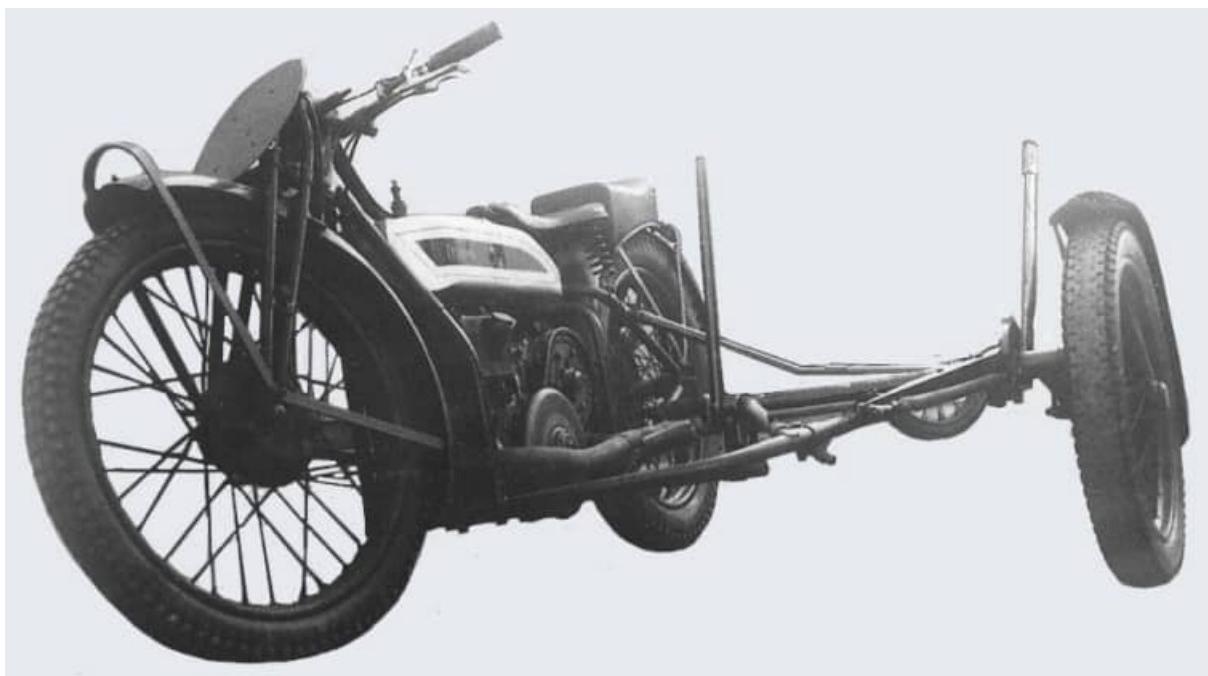
THE BLUE 'UN AND GREEN 'UN published comprehensive reports on the TT but there was an excellent alternative. What follows is the 1923 TT as recounted by Geoff Davison in his legendary annual, *TT Special*. Mr Davison, you have the floor: "In response to popular demand, as they say, the Auto-Cycle Union staged a sidecar race for the first time in 1923. The year was also an outstanding one for the TT, in that the entries constituted an absolute record. There were 177 in all—17 better than the previous record of 160 in 1914. Although the sidecar race attracted only 14 competitors, it was considered by many to be the most interesting of all. Eight different makes were represented and the field was divided evenly between singles and twins. The biggest support was by Douglas, with three machines, whilst Nortons, Scotts and Sunbeams had two apiece. The cubic capacity limit was raised from the normal 500 of the Senior to 600cc and only three laps had to be covered. One of the most interesting machines in the race was the banking [Douglas]



Freddie Dixon and passenger Walter Denny. The banking sidecar chassis was designed and built by Dixon. The sidecar wheel was mounted on a 7in crank, raised or lowered by the passenger via a lever in front of the wheel.



"A rare action shot of Freddie Dixon and Walter Denny coming out of Governors Bridge Dip, nursing the damaged Douglas which had broken a frame tube two miles from the finish."



...And here's the beast *sans* sidecar body—Dixon reckoned it took tight corners quicker than a solo.

sidecar outfit driven by Freddy Dixon. This was an ingenious device which enabled the whole machine to be leaned over to the right or left as was required. 'Its effect was naturally more marked on left-hand corners,' Freddy told me, 'but, of course, it was very useful on right-hand bends as well. It was operated by my passenger, but, except on a quick S-bend such as Braddan Bridge, I didn't expect him to judge when to put it into action—whenever possible I gave him a signal for each bend and he then got busy.' I asked Freddy how much he thought it increased his speed on the corners. 'That's almost impossible to say,' he told me. 'It all depends on the type of corner, but it was very much faster than a rigid-frame job. On a high-speed left-hand bend it might easily have raised the safe speed 10 or 15mph, and on very slow bends, such as Governor's Bridge and Ramsey Hairpin, my banking sidecar outfit could probably get round considerably faster than any solo machine.' 'How did the race itself go, Freddy?' I asked him. 'Well, everybody thought in advance that it lay between Harry Langman [Scott] and myself. Harry had been putting up some very good laps in practice and I reckoned he would want some beating. We started off at half-minute intervals in the afternoon, as soon as the



Graham Walker and his passenger Tommy Mahon on their 1923 Sidecar TT Norton. Walker designed the Hughes TT sidecar, which was widely and successfully used throughout the rest of the decade; the same design was used by third-placed George Tucker, with another 588cc outfit very like Walker's.

lightweights had finished. I was No 55 and Harry No 59, so I was two minutes ahead of him on the roads. I didn't know my position at the end of the first lap, of course, and I chased along nicely in the second lap, thinking I was doing pretty well. Then, going up the Mountain, I was singing cheerfully to myself "We won't be Home till Morning," when I suddenly found Harry on my tail. That meant that he had picked up two minutes on me in just over a lap and a half. I went off like a scalded cat and got away from him all right, but I had to stop for petrol at the end of the second lap and whilst I was at the pits, Harry, who didn't need to stop, came tearing past. Off I went again, down Bray Hill, round Quarter Bridge and flat out for Braddan, when I suddenly sensed some sort of commotion at Braddan and, as I rounded the left-hand bend, saw that there had been a crash. My passenger did some hectic work with the banking sidecar and we managed to get through without hitting anything. As we passed I realised that it was Harry who had piled up. He was not much hurt, but was obviously out of the race. As it was, his crash gave me the race, for his Scott had the speed to hang on to me and, if he had let me past on the third lap and stayed on my tail, he would, of course, have won by an easy margin. When I saw that Harry was out of it, I took things a bit more easily, which was just as well, for at Hilberry on the last lap one of the frame tubes broke and the outfit folded over so much that the handlebar jammed on the Sidecar body. I had to trundle on very slowly after that and almost lifted the machine round Governor's Bridge. However, it just got me to the end and I finished just under a couple of minutes ahead of Graham Walker on the Norton.' So that was the first Sidecar TT. Freddy Dixon's speed was 53.15mph and Harry Langman made the record lap at 54.69. George Tucker, on another Norton, was



The Lightweight race was still in progress when the Sidecar TT started—C Stead (Cotton) must have been surprised to be overtaken by R Weatherell's Weatherell Special outfit at Governor's Bridge. For the record, Stead finished 17th in his race; Weatherell was 9th in his.

third, a minute behind Graham Walker. It was then 23 before the next man-DH Davidson (Douglas)—arrived. A somewhat disappointing race, with only 14 entries and six finishers, but one which had provided the public with an extraordinary number of thrills. Now back to the 1923 solo races. The increasing speed and reliability of the Junior and Lightweight machines made it clear that they could stand a longer race than in the past. The distance of these two events was therefore increased from five laps to six, the same as the Senior. Entries for the Junior had closed with the total of 72, which stood as a record for the event until 1948, when there was an entry of 100, as there was again in 1949. Twenty-one makes were represented, Douglas heading the list with 11, of which no fewer than 10 were works entries. AJS had nine and Sunbeams—newcomers to the Junior race—seven. The Matchless firm had now come back to the racing game, with an entry of four, whilst New Imperials, hopeful after Le Vack's fine ride the previous year, had five. Amongst the riders there had been various changes of camp, perhaps the most notable of which was that Jim Simpson had turned from Scott to AJS and Alec Bennett from Sunbeam to Douglas. The race itself provided a number of surprises. Jim Simpson had shown up well in practice, but his only race experience amounted to less than one lap in the Senior of the year before. Those who had studied form, however, realised that he was a man to be watched and wagged knowing heads when he covered his first lap in 38 minutes dead—2min 7sec better than the existing Junior record and only 14sec outside Alec Bennett's Senior recent of the year before. Charlie Hough, on another AJS, was second and Bert le Vack had to be content with third place. Jim retained his lead in the next lap, but Hough dropped out, letting Le Vack into second place, 1min 33sec behind the leader. Stanley Woods (Cotton) was third, Tommy de la Hay



Stanley Woods looks justifiably pleased with himself, having just won the Junior TT on a Cotton—his skills didn't go unnoticed: Norton snapped him up and thus began a marriage made in TT heaven. (Right) By comparison HF Harris, who'd been riding for AJS since before the war, looks a tad glum. His AJS team-mate Jimmy Simpson had set a lap record before retiring and 2nd place would normally be cause for celebration. But Ajays had finished 1st and 2nd in the 1914 Junior. An AJS won again in 1920. In 1921 they finished 1st, 2nd, 3rd and 4th—and that was the year Howard Davis rode his 350c AJS in the Senior and won that too. No one was surprised when AJSs were 1st and 2nd in 1922. So, as Harris was all too well aware, 1923 marked the end of a winning streak.

(Sunbeam) fourth and Vic Anstice (Douglas) fifth—five different makes in the first five places! Then Jim broke down and Le Vack and Woods moved up. Positions in the fourth lap were the same, with Woods closing in and George Dance (Sunbeam) in third place, less than half-a-minute behind him. Le Vack then retired and Woods had a slow fifth lap, giving George a lead of over 2½ minutes. We said that at last George Dance was to break his phenomenal run of bad luck. I was watching the race personally from Sulby Bridge and George came round on his last up, with, I reckoned, a good three minutes lead. But once again bad luck overtook him, for he broke down on the Mountain when victory was almost within sight. Woods went on to win the first of his ten TT races, with HF Harris (AJS) second and Alfie Alexander (Douglas) third.

Stanley's speed was 55.73mph and Jim Simpson's first lap in 38 minutes constituted a record at 59.58sec. The Lightweight race, held on the following day, produced a record entry of 40, which has only once been beaten since, when in 1931 there were 44. Once again it was thought to be a battle between two-strokes and four-strokes, but those of us in the Levis camp—the only two-strokes represented—knew that we had little real chance. The best of the four-strokes had always been a shade faster than our machines and they were now getting much more reliable. We knew that it would be really a battle between Blackburne and JAP engines, and so, indeed, it turned out, with Blackburnes first and third and a JAP second. The first two-stroke home was no higher than seventh. Wal Handley



Geoff Davison, who wrote the TT report you're now reading, pushes off his Levis to start the 1923 Lightweight TT; he finished a respectable 10th. (Right) Jack Porter was first man home, generating good publicity for the New Gerrard marque he'd launched in Scotland the previous year.



I bet this snap was kept in the Porter family album: Jock, on his bike, with his trophy.



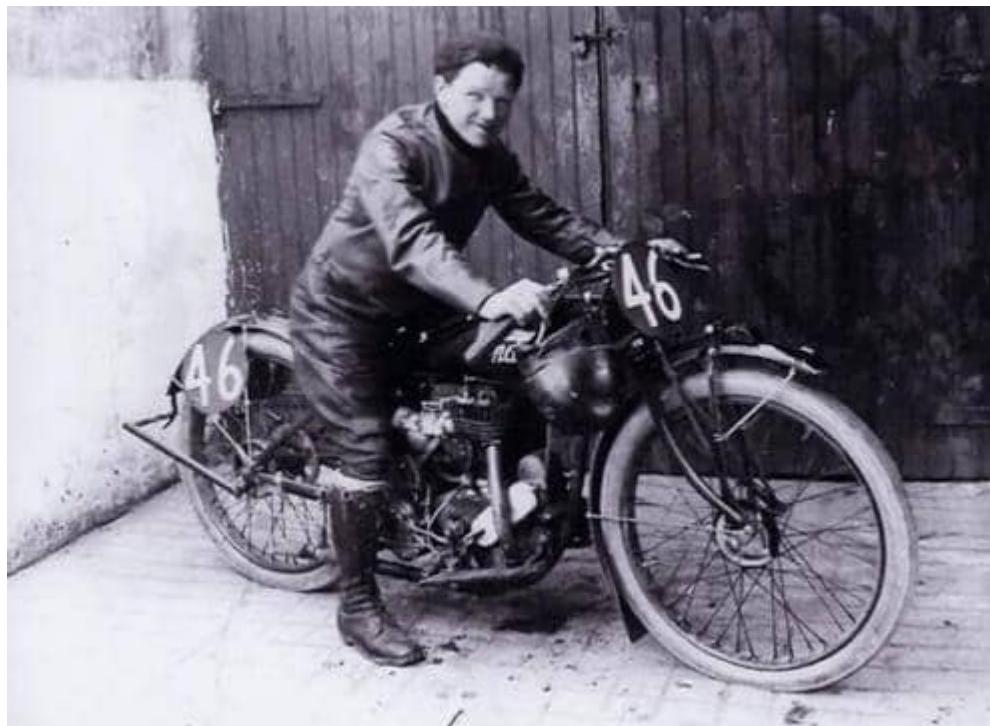
WH Bashall's pit crew tops up the oil in his Beardmore-Precision during the Junior; he finished 14th.

led off the race in characteristic style with a record lap of 53.95mph. He was followed by Jock Porter, the Scot rider-manufacturer of the New Gerrard, nearly two minutes behind. Wal led again on the second lap by 3½ minutes, but Jock was less than half-a-minute behind him when the third lap positions were shown. Wal slowed down in the next lap, letting Jock Porter into the lead, which he retained to win at 51.93mph by nearly five minutes from Bert Le Vack on the New Imperial. The 1923 Senior shook us! So far as I remember, it was the first wet TT since the Junior of 1912, and none of us, I think, who were riding in 1923 had competed in that event eleven years before. It was drizzling at the start and conditions on the Mountain were obviously dreadful, for there was a low bank of cloud over Creg-ny-Baa. This meant that we should probably be riding through mist for about ten miles of the Mountain stretch. In contrast to the huge entries for the Junior, there were only 51 in the big race, the principal makes being AJS (still 350s), Douglas, Indian, Norton, Scott, Sunbeam and Triumph. Douglasses were back in earnest, with nine works entries, including amongst their riders Alec Bennett, Cyril Pullin and Tom Sheard-all past TT winners-and Jim Whalley, who had so nearly won the Junior in 1921. They had proved very fast in practice, but had had a fair amount of mechanical trouble and it was popularly said that they wouldn't last the course. The other camps were not unduly alarmed, therefore, when the fat-twins took first four positions at the end of the first lap. Jim Whalley led with a lap at 59.74mph, actually the fastest of the day, with Alec Bennett second, Alfie Alexander third and Tom Sheard fourth, less than a minute separating the four. Alec slowed down next lap, but Jim maintained his lead for the second and third laps, after which Tom

Sheard, the Manxman, who knew every inch of the course and was alleged to take the almost invisible Mountain bends by memory rather than by sight, came into the lead. By the last lap all the Douglasses except Tom's had disappeared from the first five. The Manxman slowed down slightly to be on the safe side, but won by nearly two minutes after the most miserable Senior that was ever run. The only bright spot in it for me personally was when I broke down at Ramsey and came home by the Mountain Railway with Howard Davies, the pair of us eventually acquiring an open horse-drawn carriage and driving it to the start at the end of the race in crash hats and soaking leathers. That would have made a picture



Thomas Mylchreest Sheard was the first Manxman to win a TT (the 1922 Junior). And in 1923 he won the Senior. Was the Island proud? It seems so.



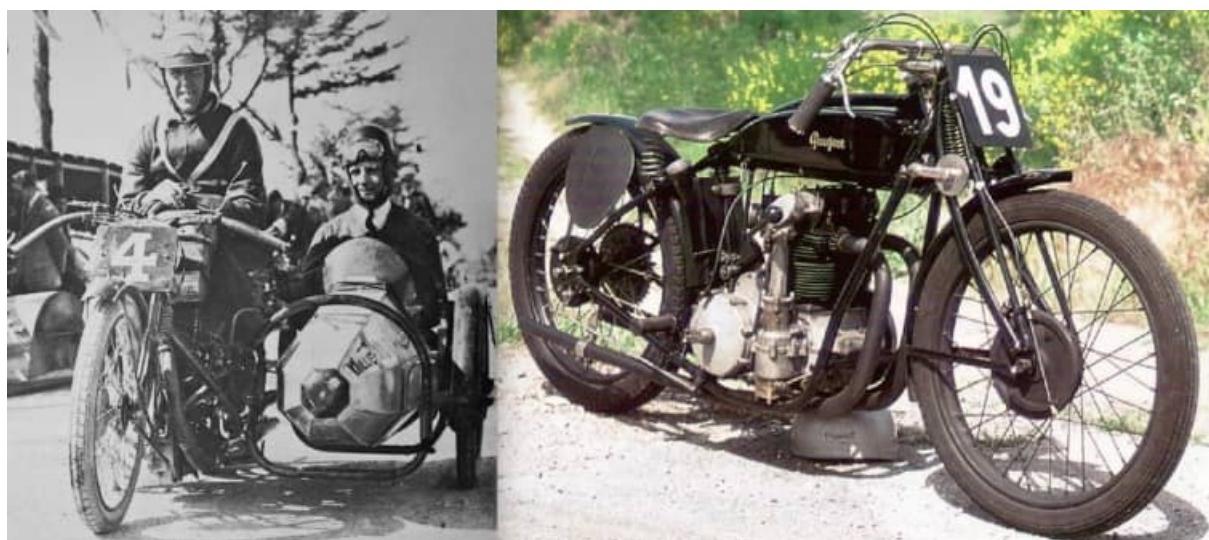
It was a good week for Freddie Dixon: having led the sidecars home he rode his Indian into 3rd spot in the Senior.

which the Press photographers missed! In view of the fearful weather, Tom Sheard's speed of 55.55mph was most creditable, but it was nearly 3mph slower than the 1922 Senior...No-one had yet lapped the TT course at the full 60mph." Spare a thought for Jim Whalley who came so close with a Senior lap at 59.74mph on his Douglas before retiring. Graham Walker had a

better year: runner-up in the Senior and 4th in the Sidecar (*The Motor Cycle* described the sidecar race as “the most spectacular and genuinely thrilling struggle to be witnessed in the Isle of Man”). The Douglas team could also rejoice, with wins in the Senior and Sidecar and a 3rd in the Junior; and Manxmen must have been proud that, having won the Junior the previous year, local lad Tom Sheard won the Senior. Jock Porter won the Lightweight on the New Gerrard he’d launched the previous year. Stanley Woods’ Junior victory was the first of 10 TT wins; Jimmy Guthrie failed to finish his Junior outing but would go on to win six TTs. And Geoff Davison, who wrote the report you’ve just read, rode his Levis to a creditable 10th place in the Lightweight.

Lightweight: 1, Jock Porter (New Gerrard) 51.93mph; 2, Hubert Le Vack (New Imperial); 3, D Hall (Rex-Acme); 4, R Gray (Rex-Acme); 5, N Black (Cedos); 6, L Horton (New Imperial). **Junior:** 1, Stanley Woods (Cotton) 55.74mph; 2, HF Harris (AJS); 3, AH Alexander (Douglas); 4, JA Watson-Bourne (Matador); 5, Vic Anstice (Douglas); 6, Frank Longman (AJS). **Senior:** 1, Tom Sheard (Douglas) 55.55mph; 2, GM Black (Norton); 3, Freddie Dixon (Indian); 4, Graham Walker (Norton); 5, Tom Simister (Norton); 6, JLE Emerson (Douglas). **Sidecar:** 1, Freddie Dixon & TW Denny (Douglas) 53.15mph; 2, Graham Walker & Tony Mahon Norton); 3, George Tucker & WW Moore (Norton); 4, Douglas Davidson (Douglas); 5, Harry Reed & Joe Hooson (348cc Dot-Bradshaw); 6, Freddie Hatton (Douglas).

FOLLOWING THE TT THE BRITS crossed the Channel for the various Grands Prix. In the 500cc class of the French a Douglas was followed home by a pair of Nortons. AJS took 350cc honours; the top two 250s were Levis and Cotton. But the Brits didn’t have it all their own way. At the Belgian GP Indian took 500cc honours ahead of two Belgian-made Saroleas (Sarolea dated back as far as 1898, but during the early 1920s its 350 and 500cc singles had a distinctly British look to them). FN, also on its home ground, took 350cc honours but Wal Hanley’s Rex-Acme was the fastest 250 on the day. The Italian Grand Prix gave AJS another 350cc win but a 4-valve sohc version of the Peugeot vertical twin led the 500s by better than 12 minutes. The best placed Italian contender was a Guzzi, which came 4th. AJS collected another 350 trophy; the feared Garelli team was relegated to 4th, 5th and 6th spots.



George Tucker with passenger Walter Moore after winning the Belgian Sidecar Grand Prix in 1923. (Right) A Peugeot vertical twin romped home to victory in the 500cc class of the Italian GP.



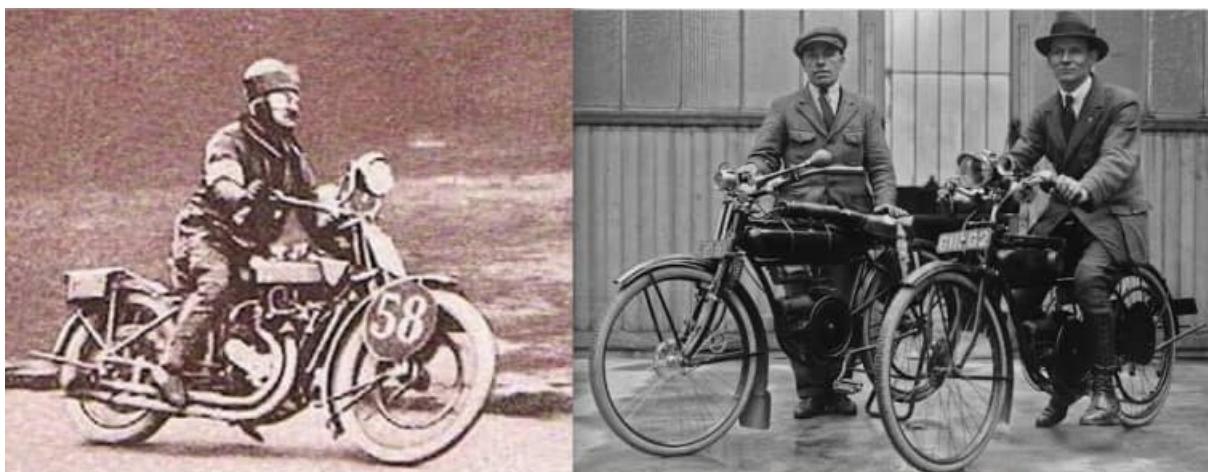
French contenders on their home ground included Alexandre Hommaire (Orial) in the 600cc sidecar class and (right) Marc (Alcyon), who won the 350cc class.



Rene Gillard (Peugeot) won the 500cc class.



The was more than one Grand Prix in France—the MC de Lyon hosted their own. Saetti continued Garelli's winning streak in the 350cc class; Moret continued Orial's winning streak in the 600cc sidecar class.



Two extremes at the Bol D'Or: Zind (Mototsacoche) en route to winning the 500cc class; (Right) Pouget and Rossignol on Evans Cyclermotors at the weighing in.



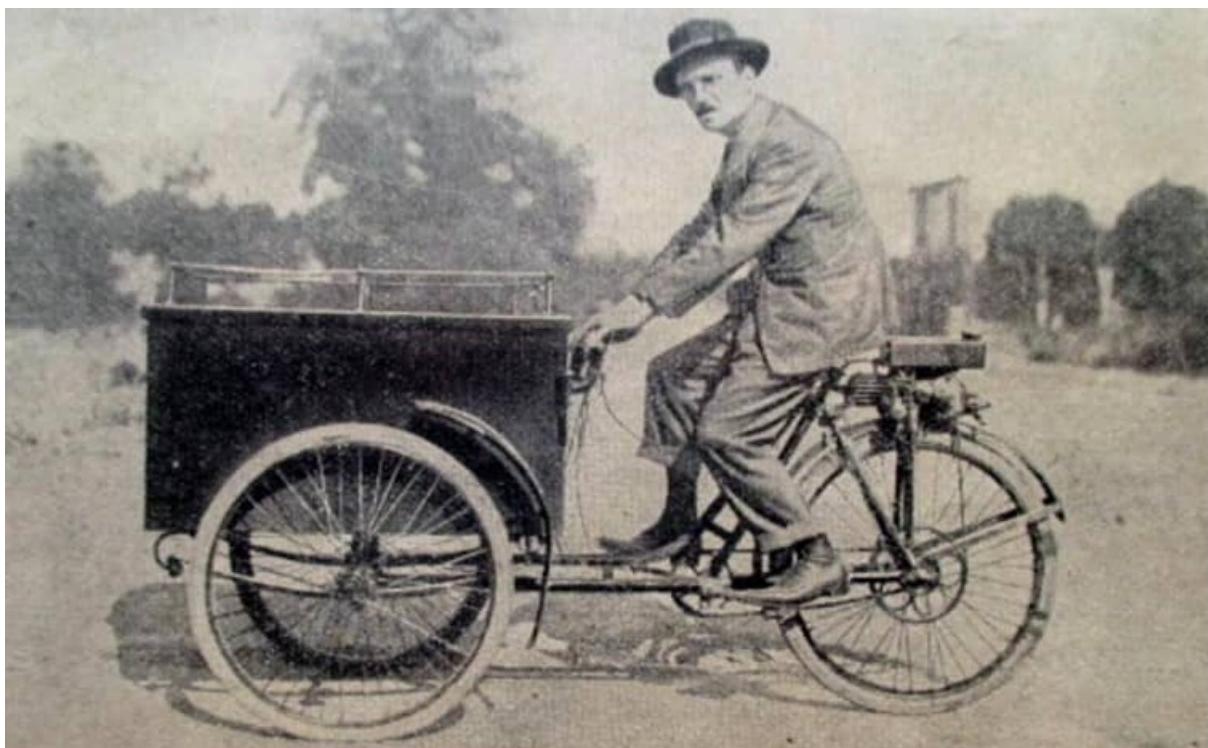
François Clech Rode in the Bol d'Or on his Motosolo.



Here's the all-conquering Peugeot team at the Circuit de Tours: Messrs Pean, Richard and Gillard.



"The Circuit de Champagne was 45km long. Competitors had to cover it five times. From left to right, Pean, Lacroix and Devaux who took the first three places in the 350cc class on their Peugeots. (Right) Checking the cylinder capacity. (Inset) Pean, the overall winner, beat 500cc and even 650cc motorbikes with his 350cc Peugeot. His team-mate Lacroix won the coupe de régularité."



...and far, far from the glory of the race tracks, the 'triporteur' delivery forecars showed what could be done with a minuscule engine.



20. NANTES - Fête de la Mi-Carême 1923 - Nourrice sèche en l'an 1950 - Nini et Nono fétiches porte-bonheur

Equally non-sporting but competitive fancy-dress fun and frolics at the Nantes carnival: "Midsummer's Day 1923—dry nurse in the year 1950—Nini and Nono lucky charms."



The Helios was built in BMW's factory using the 493cc flat-twin BMW engine but it wasn't an inspiring machine. So, having made a success of its proprietary engine, BMW decided to produce a complete motor cycle. Max Friz, who had designed the engine, came up with the R32, featuring a tidy triangulated frame with leaf-sprung forks; the unit-construction 4½hp side-valve engine was mounted transversely. It was launched at the Paris Salon; this wouldn't be the last time the Jerries took Paris by storm.



Also at the Paris Salon was the first Motobecane, the belt-driven 175cc MB1, offered as the 'Modèle Homme' or (right) for an extra 75 francs as the Modèle Dame et Ecclésiastique'.



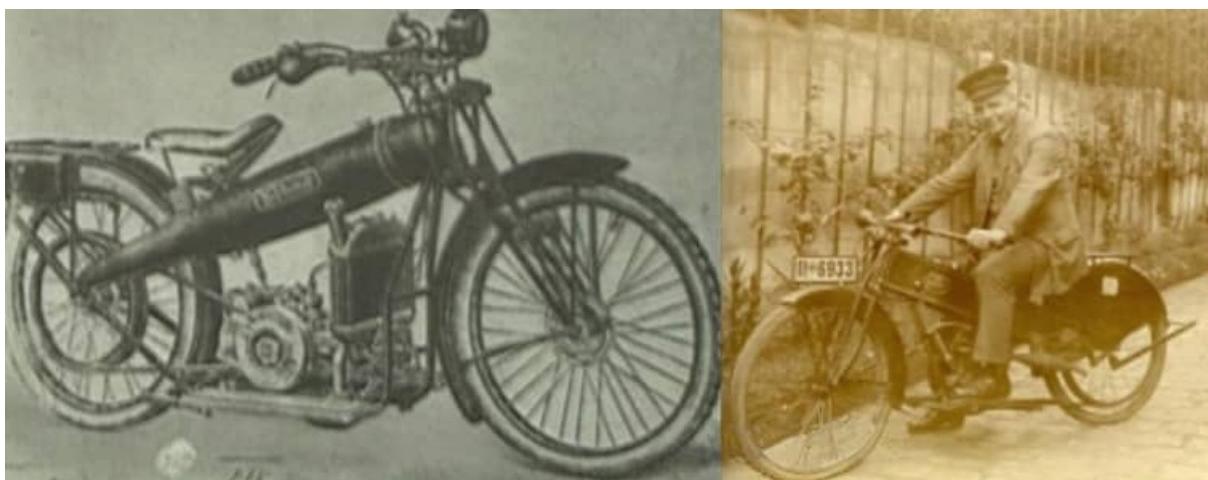
Having pioneered shaft drive on its trend-setting in-line fours FN switched to chain drive, explaining it was much cheaper and was now perfectly reliable (and with FN shafties costing twice the price of other motorcycles cost cutting was not a luxury).



Rudge also rang the changes, dropping the pioneering Multi in favour of a fast four-valve 350 with all chain drive and four-speed countershaft box.



The Germans weren't above a spot of cloning. Mabeco built a replica Indian Scout, with sv V-twin lumps by Siemens & Halske in 596 and 749cc (an ohv followed, also available as a racer). They even had an Indian red livery. Indian sued, Mabeco was shut down, changed its name and survived until 1927 making 996cc ohv and 346cc two strokes under licence from Garelli.

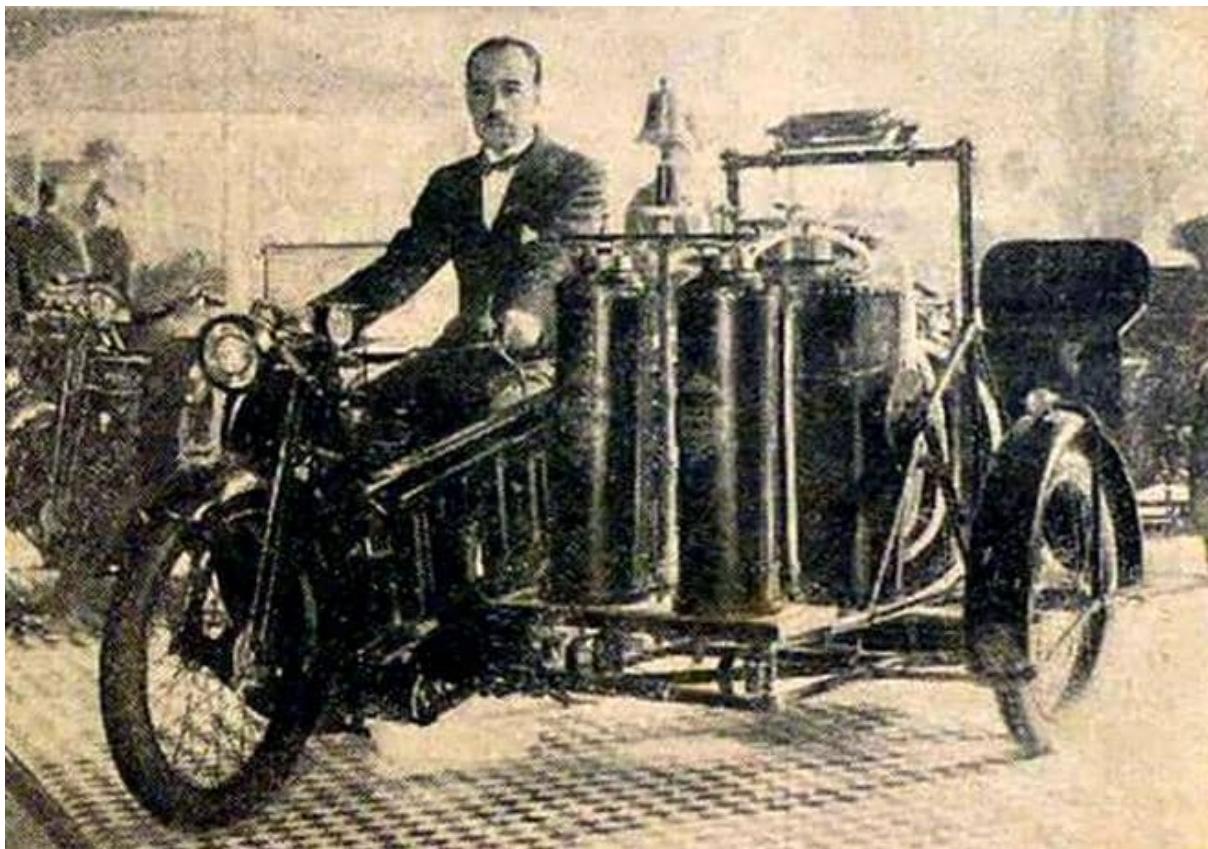


The shattered German economy produced more than 250 short-lived marques in the early twenties, so spare a thought for the broken dreams behind marques like Atlas, Bodo, Kurier,

Hoco (with another wooden frame), Fix, Apex, Ge-Ma-Hi, Hess and Hexe. They weren't short of innovation: one model was claimed to run on any liquid fuel, including "crude oil". Short but sweet: The Bodo and (right) the Ge-Ma-Hi.



THE Schmid was built in Geneva by Carl Schmid; not least to advertise his talent for panel beating and aerodynamic design. It featured a monocoque chassis, hydraulic brakes and, allegedly, a self-starter. A 175c 3hp engine gave a claimed top speed of 45mph.



"A Motor-Cycle Fire Engine—At the recent Motor Cycle Show at Olympia, in London, a motor-cycle with sidecar fire engine was shown. It is, in fact, a complete fireman's outfit, for it carries a fire escape also, and is suitable for small villages without a regular fire brigade."

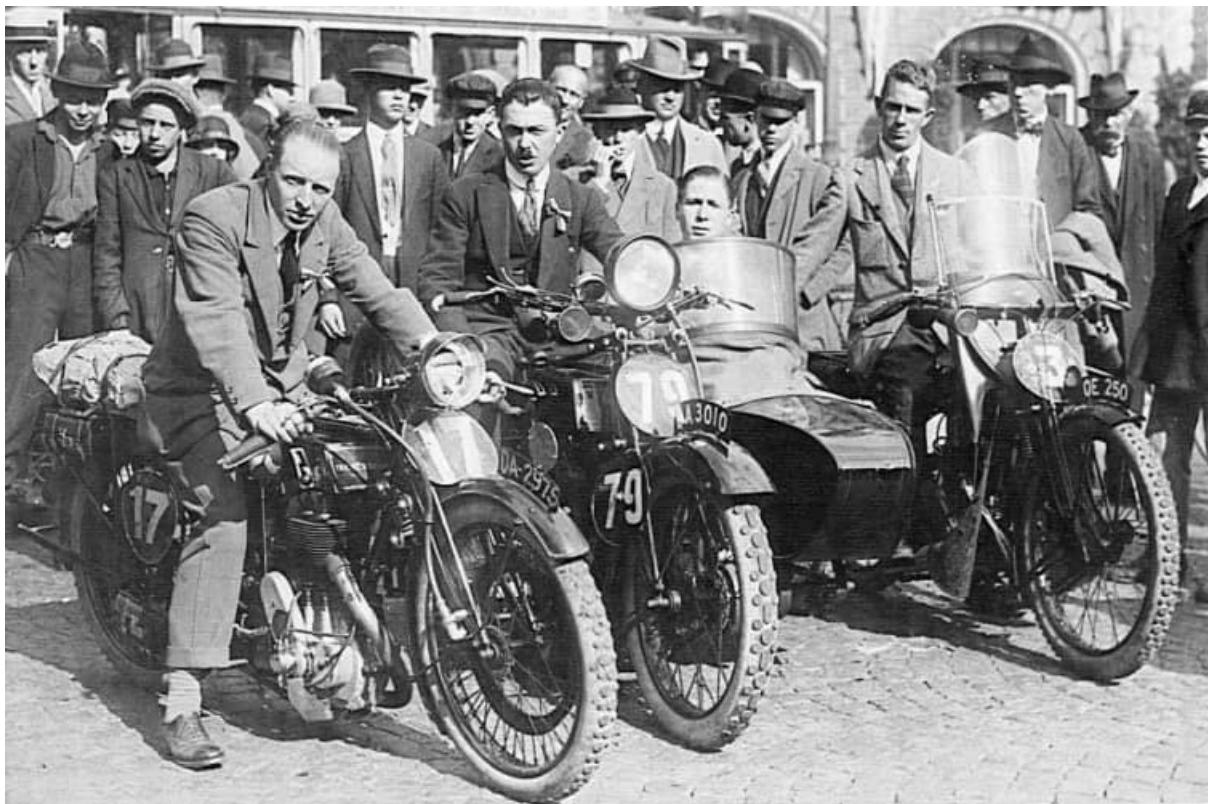
"A bicycle equipped with the Trebloc unit, showing the neatly arranged chain transmission. (Right) The unit clipped to the frame of a gentleman's model bicycle."



The island hosted the first Amateur TT, later renamed the Manx Grand Prix. It was won by Les Randles (Sunbeam) at 52.77mph, ahead of Kenneth Twemlow (New Imperial) and Manxman Arthur Marden (Douglas).

FOLLOWING A GOOD SHOWING IN the 1922 ISDT in Switzerland, where two of their riders won gold medals, Sweden was granted the right to host the 1923 trial. The 1,863km route started and finished in Stockholm with a couple of days in Norway. A Swedish enthusiast reported: "I was surprised to see all the foreigners cope so well with the harsh Swedish conditions. We knew that 'our own' would be tested to the limit here, but we were all surprised that the international riders did so well in the inferno of mud. Going uphill during these demanding conditions was hard. The roads were so miserable that you thought you were standing in the middle of a recently

ploughed field. Passing through with good speed required determination and stamina. And everyone seemed to know exactly where to change sides, taking another furrow to make the most of the race.



Britain's ISDT Trophy team: Tommy de la Hay (Sunbeam) T Giles (AJS) and Bert Kershaw (New Imperial).

So, the first day ended in the region of Dalarna at Rättvik after 320km of riding. The second day was slightly longer being 378km in length, taking the fast crowd to Karlstad. Then it was time to go to Norway. On the third day, the riders went 270km to Kristiania (Oslo) before getting some rest. Outside of the Norwegian capital there was a hill-climb section of 2,250 meters. Being very steep, it was a decisive moment for many a rider trying to go fast uphill. After half the race, the Husqvarna team with riders Gustaf Göthe, Bernhard Malmberg and Gunnar Lundgren were well ahead—so far without penalties. On the fourth day, it was back to Sweden again, going all the way to Gothenburg—a distance of 388km. The fifth day was only 335km long, but at this stage, everyone was getting tired and you could see the strain in the faces of every participant. During the final stage back to Stockholm, 172km, there was a kilometre-long speed-stage ahead of the capital. It proved to be quite decisive and only the fastest managed to keep up their pace here. All in all, 67 riders were seen arriving at the finish line in Stockholm. Thirteen of them were awarded a gold medal while the Husqvarna team ended up winning the all-important Trophy class. There were of course happiness and congratulations in the famous red brick-wall Stadium, before everyone hurried to town for drinks, meal and final celebrations.”



Ed Gex (Motosacoche), winner of Class G (1,000cc sidecar). (Right) Harley-Davidson won the manufacturer's prize (E Westerberg, FE Larsson, G Westerberg).

ISDT Results: The Swedish team won the trophy; the Brits were runners up. Harley-Davidson won the manufacturer's prize, with Husqvarna 2nd and FN 3rd. The club prize went to SMC Dalaavdening. Class winners were: Class A (250cc), Bert Kershaw (new Imperial), England; Class B (350cc), BL Bird (BSA), England; Class C (500cc), CL Vaumund (Triumph), Norway; Class D (750cc), Oluff Graff (Husqvarna), Sweden; Class E (1,000cc), JW Petterson (Excelsior), Sweden; Class E1 (unlimited), G Tidstrand (Ace), Sweden; Class F (600cc sidecar), P Pehrson (Dunelt), England; Class G, (1,000cc sidecar), Ed Gex (Motosacoche), Switzerland; class G1 (unlimited sidecar), E Friberg (Indian Big Chief), Sweden.



Norwegian rider Christinus Vaumund (Triumph) won the 500cc class (Right) Christinus' brother Ernst competed on his Harley.



Mary

Jennison on her Brough Superior at the start of the 1923 ACU Six Days Trial, with her husband Matt in the Swallow sidecar.

A RECORD BREAKING 130 ENTHUSIASTS started the Edinburgh & DMCC's Scottish Six Days Trial; 89 of them completed the 1,010-mile route which included three new test hills. A dozen heroes earned gold medals, riding two Ajays, a Beeza, a Coventry-Eagle, a Douglas, an FN, an Indian, three Raleighs, a Triumph and a Velo. A trio of AJS 350s won the manufacturer's team prize.



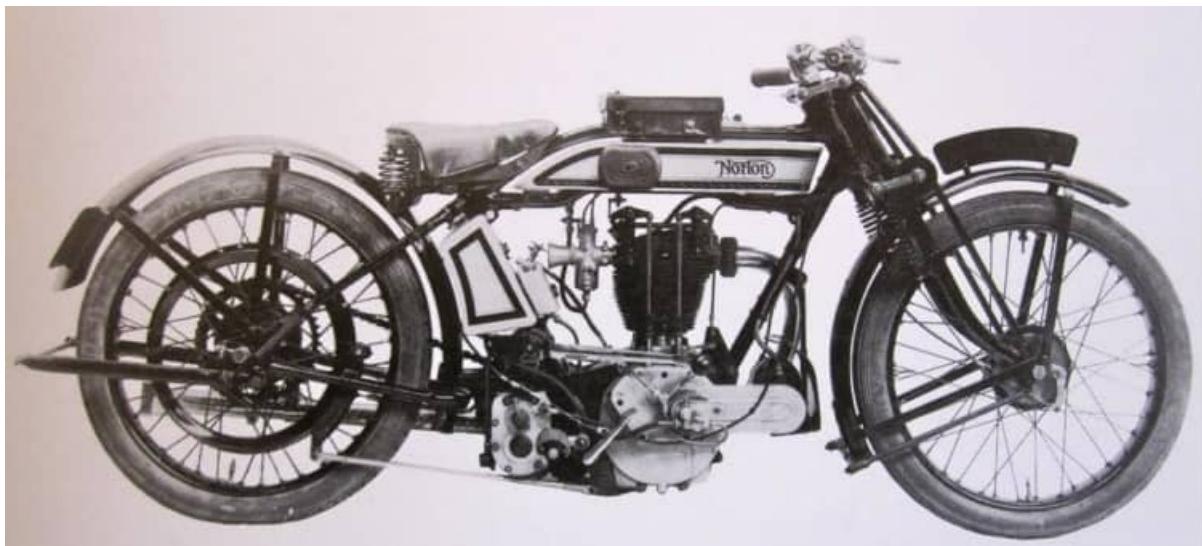
SSDT riders break for lunch at Applecross. (Right) The AJS team, GE Rowley, LH Davenport and CE Wise.

MIKUNI SHOTEN WAS SET UP to import vehicles into Japan, and to make components. Its carburettors would play a significant role in the development of the Japanese industry (in 1932 Mikuni bought manufacturing rights for Amal carbs). Nippon Jidosha some Harley Davidsons;

the company was run by Cambridge graduate Kishichiro Okuro who had taken second place in the first Brooklands car race in 1907.

MUSASHINO KOGYO MANUFACTURED a single-cylinder two-stroke powered machine for which it made an incredible claim; every part was made in Japan. If it were true it would have been an astonishing first; in fact magnetos, carburettors and gearboxes were imported.

WHITE LINES WERE PAINTED on the roads of Sutton Coldfield, Barnstaple and Kirton, Lincs.



George Pettyt, owner of the Exeter branch of Maudes Motor Mart, donated a silver trophy to the ACU to promote motorcycle reliability. First winner of the Maudes Trophy was Norton after its Model 18 averaged 64mph for 12 hours at Brooklands, setting 18 world records in the process. The Norton Model 18 that won the first Maudes Trophy was an (almost) standard roadster; this is the racing version.

The Most Astounding Performance in the History of Motor Cycling

EIGHTEEN WORLD'S RECORDS IN TWELVE HOURS
ON AN
ABSOLUTELY STANDARD MACHINE

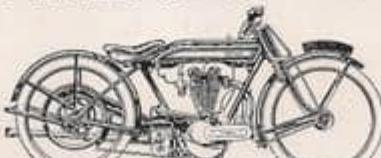
The Unapproachable



IS THE MOTOR CYCLE WITH THIS AMAZING FEAT TO ITS CREDIT

On September 13th, 1923, an A.C.U. Official selected from our stock the parts of an O.H.V. engine. All the parts were stamped and the engine assembled under the observation of the A.C.U. Official. The engine was then taken to Brooklands without first being subjected to any test whatever, and fitted into a standard frame No. 7743. The machine was then run-in over twenty-nine laps of the track, the only adjustments being to ease the piston and re-time the Magneto. The machine then started on a twelve-hour test, being ridden by Messrs. D. R. O'Donovan, R. M. N. Spring and A. Denly.

DURING THE TEST WORLD'S RECORDS FOR 7, 8, 9, 10, 11 & 12 HOURS
AND 500, 600 AND 700 MILES (CLASSES C AND D) WERE BROKEN



3½ H.P. O.H.V. AS USED IN THE £89

YOU CAN OBTAIN AN IDENTICAL MACHINE

Catalogue free on request.

Norton Motors LTD.
BIRMINGHAM.

Norton clearly weren't hiding

their light under a bushel...

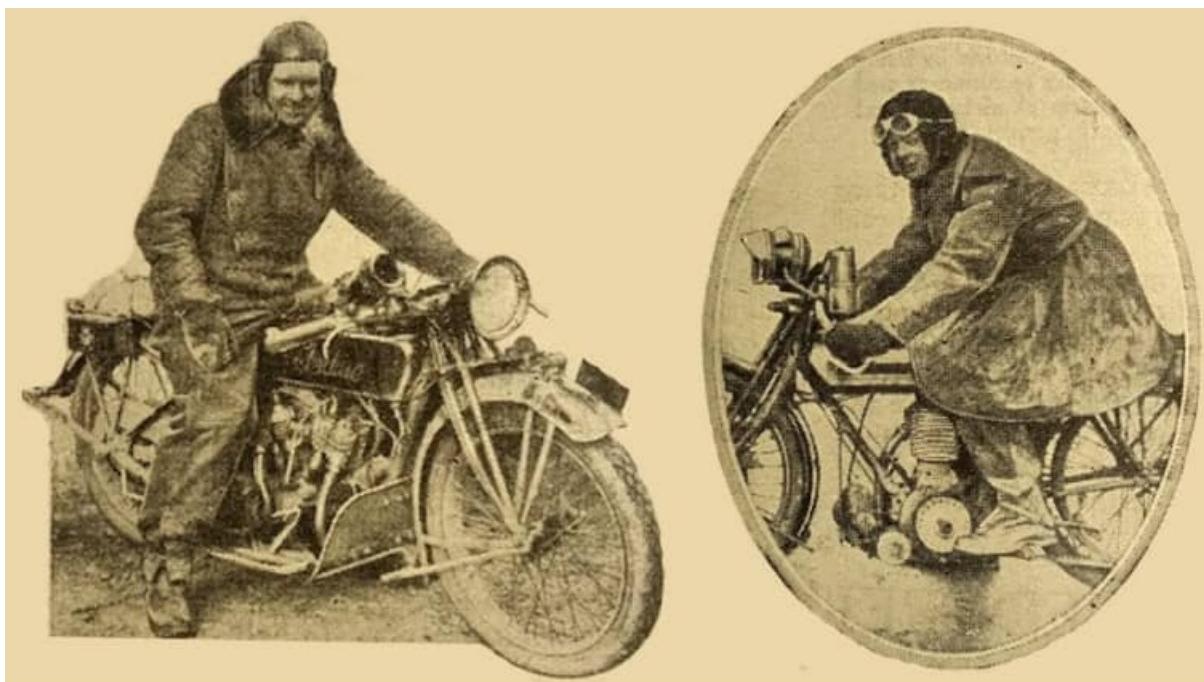
"THIS PAGE," IXION CONFIDED, "has never been closer to appearing with a heavy black border than in the current issue. I don't share the common enthusiasm for helmets as headgear, but when the wind is east and the thermometer down towards zero, my somewhat elongated ears feel that they require what the airmen call 'fairing'. So last week I donned a helmet, not because it was a helmet, but because my cap has no sausages. The road ran between high walls, and twisted snakily towards the setting sun. All seemed clear, and I rounded a mildish bend at speed to get the full blaze of a Westering horizontal sun right in my eyes. Not a thing could I see for several seconds, and when visibility returned I was about half a millimetre off the tail of a nasty, solid looking coal cart, screened in the shadow of the wall. The Norton did a greased lightning right and left skid to round the cart without fouling the opposite wall; and when I got home, I gave the helmet to the children to play air raids with. There should be a market for a helmet with a light stiff peak (say, aluminium, covered in leather), for a low sun is awkward for a westbound rider in unpeaked headgear at any season of the year."

"THE BULB HORN," IXION REMARKED, "is all very well for what the secretary in Joseph Conrad's 'Victory' would describe as 'tame' people, viz, such as like to live where there are plenty of police, and regard all laws and officials with reverence. But its meek, shortcarrying notes do not

suffice for some of us. And in this class of rider the mechorn reigns supreme. Mechorns have saved my life and my freedom many a time, so I must say nothing unkind about them. But they make a raucous noise, like a crow who has been out after wireworm too early on several November mornings running. Moreover, you have to remove a hand from the bar to thump them. Until I invested in a dynamo, I never dreamt of anything better than a mechorn. But as soon as electrical supplies were taken on board I bethought me of electric hooters, and for many miles I have soothed the errant pedestrian out of my path with the dulcet notes of the Dekla horn, operated by a spring push near the left forefinger. It has never let me down, and is altogether better-bred and more musical than a mechorn."

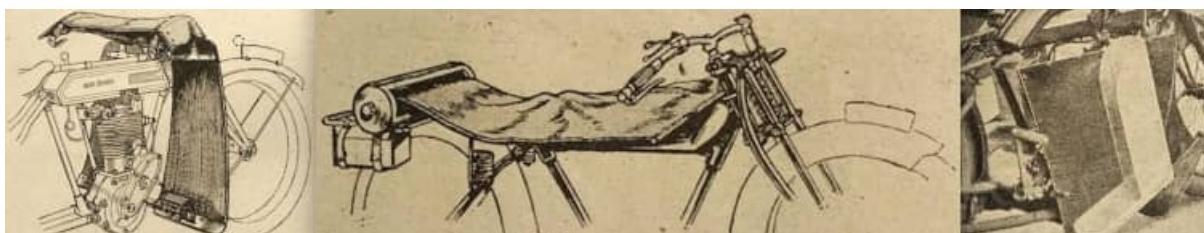


"MANY OF US ARE CONTENT to take the rain as it comes. If it wets us through whilst out riding we grumble and dry ourselves the best we may. In the same way, if the machine bearings, the plating, the coachwork or the hood suffer through inattention after journeys in soaking downpours, the damage is viewed philosophically. But there is no wisdom in getting soaked through careless selection of clothing, neither is there sense in permitting undue depreciation of the machine to take place through laziness or thoughtlessness. It is just a matter of a little care whether we ride in comfort or in discomfort. To keep warm one must wear leather, but to be perfectly dry oilskin or rubber is absolutely necessary, and to decide which to use is difficult. The Motor Cycle staff are divided in their opinions, but the majority favour rubber for the reason that oilskins have a way of cracking at the elbows and across the shoulders; and unless special care is taken, they soon become useless. Given a long rubber poncho snugly fitting at the neck (or a long rubber coat and a heavy muffler), waders large enough to slip over the boots, an apron on the handlebars and an oilskin helmet, one can face hours of heavy rain and yet keep perfectly dry. On



"Many riders favour the Sidcot suit which is warm as well as rain-resisting, but seldom torrent-proof. (Right) Though not particularly graceful, a rubber poncho and waders form the most effective rig for wet weather riding."

some occasions, the writer has found the use of a shield extending in front of the knees and brought up over the handlebars a decided boon when faced with a long, wet ride—particularly on a sidecar outfit with bars of the touring type. It is quite an easy matter to make this shield; but if that be irksome, there are several effective designs already on the market. Another inexpensive but useful idea is a cover for the saddle. Instead of allowing the seat to become soaked whilst away from the machine, it is an easy matter to slip on a waterproof bonnet—a ladies' bathing cap once served for this purpose during a wet holiday. Better still, there is on the market a saddle cover which when not in use disappears into a metal case fixed to the carrier. It might be thought that the provision of a stock hood and screen is all that is required to keep the sidecar passenger dry and warm. But that is not so. Unless more than ordinary care is used to ensure that the hood fits accurately over the screen, and provision made to prevent the rain driving in at the sides, a sidecar ride in wet weather can be meet uncomfortable. Unfortunately, many of the sidescreens sent out by hood makers take far too long to adjust. Manufacturers of sidecar hoods might take a leaf out of the car maker's book and place on the market hoods and side screens of the style that transforms an open touring car into a coupé in a few seconds. Existing sidecar hoods can be made reasonably watertight by home made sidescreens fitted permanently on the upper part of the hood, dropping loosely over the sides to exclude rain when the hood is in position. These loose curtains can be made to clip on to the inside of the body."



From the left: "Simple but very effective leg and body screen. The protection over the handle-

bars is better than might be imagined. Cloverly saddle and tank cover which rolls out of the way like a railway blind. Leg and engine shield particularly suitable for a machine with footboards."

"MOTOR CYCLE MEETS AND RALLIES: Those blessed with youth and the keenness of youth are apt to be a little impatient of that type of club function which falls principally Under the control of the social secretary-annual dinners and other strenuous indoor entertainments always excepted. The energetic club man who rides solo is seldom satisfied with any club fixture which does not fall into the speed contest, or reliability trial class. For the older members who have taken to three wheels, or even four, either from considerations of safety or companionship, social events have their charms. As an opening run for the year's programme, for instance, a rally of the members at some beauty spot is an admirable event. It enables new models to be paraded and discussed; it gives new members a chance of becoming known and old members an opportunity of renewing acquaintanceships. If such a rally can be undertaken collectively by a number of clubs in one area, the social value of the meeting is greatly enhanced. Perhaps the younger element will feel a certain aimlessness in gathering together at a particular place without a set programme, but a competitive atmosphere or an impromptu hill-climb may easily be incorporated. At the Richmond meet in Yorkshire, it was the custom to give prizes to individual riders for such things as the best-kept machine over a certain age, the smartest. turn-out, the most ingenious item of home-made equipment, etc, in . addition to a club prize for the largest percentage membership present, taking mileage into account. The main thing at such a meet is the necessity of having a definite though simple programme, which must be carried out strictly to schedule. Slipshodness in this respect is fatal."

ALMOST 100,000 MOTORCYCLES were registered by December.

...and, to conclude this review of motor cycling in 1923, a selection of contemporary ads:

TO MOTOR CYCLISTS

*The 42nd (East Lancs.) Divisional Signals
Territorial Army*

ROYAL CORPS OF SIGNALS

*require a few men of good character between the
ages of 18 and 38 for*

DESPATCH RIDERS

*Only men of good physique and character who
possess a motor cycle of a standard make and are
willing to use same during training will be accepted.
On all occasions when use of motor cycle is required
payment for hire will be made.*

ANNUAL TRAINING THIS YEAR

will be carried out at

RAMSEY . . . ISLE OF MAN

from 20/5/23 to 3/6/23

For particulars of Pay, Service, etc., apply at

HEADQUARTERS

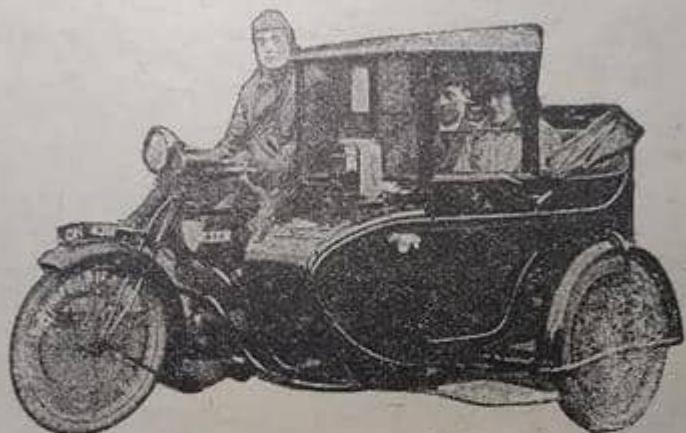
**42nd (EAST LANCS.) DIVISIONAL SIGNALS,
DRILL HALL, BURLINGTON ST., MANCHESTER**

Q: How do you attract
motor cyclists to sign up as 'terriers'? A: Offer to pay them to go to the Isle of Man the week
before the TT!

The POPULAR
**“COUNTY” B.S.A. TAXI
COMBINATION**

Complete with “County” Compensating Brakes.

(PATENT NO. 175752).



A New Opportunity for Motorcyclists.

Become a Taxi Proprietor.

Good Openings in all Parts of the Country.

Write us to-day for catalogue and full particulars.

**COUNTY CYCLE & MOTOR CO., LTD.,
THE B.S.A. SPECIALISTS,**

300 & 301, Broad Street, BIRMINGHAM.

Purchases by deferred payments can be arranged.

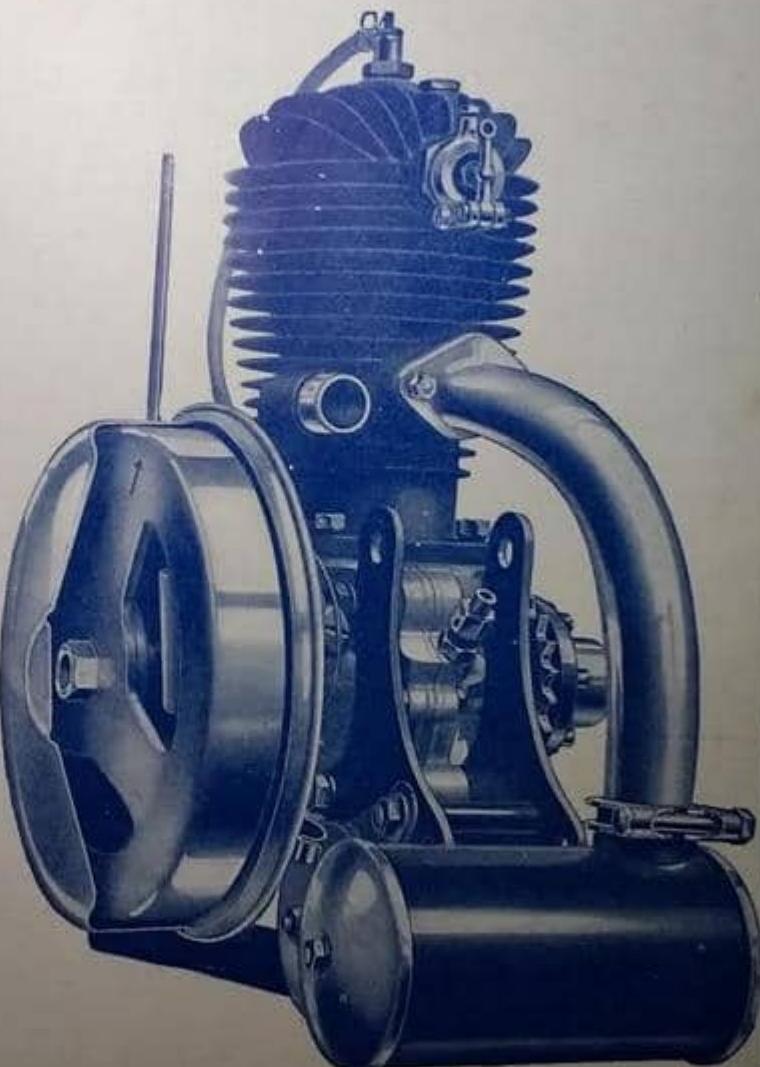
IMMENSE HILLS CLIMBED

THROUGH the designing and making of a special form of Magneto, the VILLIERS engine has become the most powerful and efficient Two-stroke in the World.

It sparks perfectly at slow speeds, and therefore develops power when it is most needed—that is to say, on a hill.

SCREW HILL,
Carnarvon,
probably the worst Hill in Great Britain, was climbed 13 times in succession.

Booklet free from
the Makers



THE VILLIERS ENGINEERING COMPANY LIMITED
Sunbeam Street

Wolverhampton

Depots: LONDON, GLASGOW, PARIS, BRUSSELS, AND MILAN.

In answering this advertisement it is desirable to mention "The Motor Cycle."



SWAG BAG.
Base 11in. x 6in. 8/-
or 17in. x 8in. 12/-



GROSE'S NEW TWO- OR THREE-SPEED FOOT CONTROL for STURMEY-ARCHER.

ROTHERHAM'S COMPRESSION TAPS.

Sparkling plug thread, **2/6**
Cheaper makes, **1/-**



GROSE TORPEDO AUXILIARY TANKS.
Fitted on top tube. Quart size, **2/-**. Half gallon, **10/-**.



SPECIAL POCKET SPANNER.
Case-hatched and exceptionally well made. Although this is an adjustable spanner, it can be locked at any size. We guarantee each **2/6**.



1923 TAN-SAD MILLION SEATS, 25/-
Back rest, **7/-**.
Side footrest, **5/-**.
Side footrest with dress pocket, **5/-**.
Handles, **2/-**.



THE OIL CAN WHICH WILL NOT LEAK, 1/-.

When required for use screw both nuts as illustrated at A. When not in use screw down both nuts as illustrated at B, making the sides of the oil can solid, so that bumping and squeezing in the tool-bag cannot affect the squatting spout as it does in the ordinary fuel-ing oil case. For fitting in small holes, translate feed by unscrewing one nut only as required. C denotes leather washer inside the nozzle cap.



MIRACLE OIL.
As used successfully in the T.T.
Moors and many records.
1 pint, tins, **6/-**.
2 pint, tins, **1/-**.
4 pint, tins, **2/-**.
8 pint, tins, **4/-**.
16 pint, tins, **8/-**.



GROSE EMERGENCY VICE.
Fits on carrier, **2/-**.



GROSE TOOL BAGS.
7x10x3½ in. 3/-
8x10x3½ in. 4/-
9x10x3½ in. 4/6



THE "SANDUM" SIDECAR AUXILIARY SEAT, 15/-.



SPUR FOLDING SIDECAR CARRIER, 6/-.
With petrol can carrier, **10/-**.



Mix it with your oil to obtain free running, no carbon, clean plug, no smoke, engine easier to start from cold, pistons never gum up.

1-gallon charge, **2/-**.
5-gallon charge, **7/-**.

X.A.246
XA.246
ALUMINIUM NUMBER PLATES WITH LICENCE HOLDER.
18/- per pair.



Established 1870.
111, New
Central
Road,
London,
England,
City.

Old Jewry, Cheapside, LONDON, E.C.2.

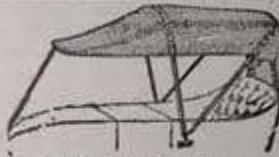
And at 255-257, Holloway Road, N.

And at 8, New Bridge Street, E.C.

To save delay, please address all post orders to

"Old Jewry, E.C.2."

TERMS: Cash with order only, and carriage extra. Cash returned for any goods not approved at.



GROSE SIDECAR HOODS.

Best double proof tanned leather, superior fittings and will fit practically all sidecars.

Clothesline **30/-**
Leatherette to keep hood clean **5/-**
Sidecar Apron Cover, all patterns **9/-**

UNDER SHIELDS

for a 1½ h.p. Douglas.

3/6



MECHANICAL MOTOR CYCLE HORN, 7/-
Each. Usual price **1/-**.

Dia. 3in. Dia. 4in. front bell, 1in. A smaller size horn, **8/-**. Case, **1/-** extra.



GROSE LEATHER PADDED KNEE GRIPS.

These knee grips are very well made, dished lined to prevent scratching on tank, and supplied with best quality laces. **3/11**



BOBBIN LAMPS.
4½in. diam. Best plated. Our price **12/6**.

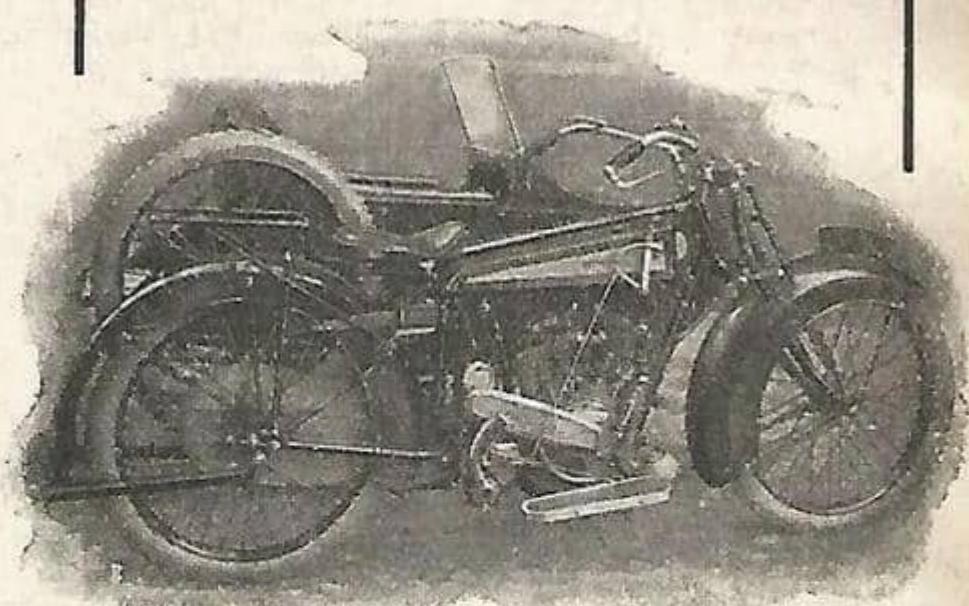
Large size, **15/-**.
5½in. height, **15/-**.
Carriage paid.

Grose's 1923 Illustrated Motor Cycle List, full of useful information, and with latest reductions post free 6d.

FREE to each purchaser we will present a LODGE SPARKING PLUG for each cover bought. This advertisement must be sent with order.

"Clyno" 8-10 HP con sidecar

LA PIÙ MODERNA E VELOCE



Caratteristiche principali:

Sospensioni elastiche alla Moto e al Sidecar
Ruote smontabili e intercambiabili
Teste dei cilindri staccabili

**Pezzi di ricambio per tutti i tipi "Clyno",
pronti in magazzino**

*Cerchiamo Agenti in tutta Italia
Domandateci listino coi nuovi prezzi*

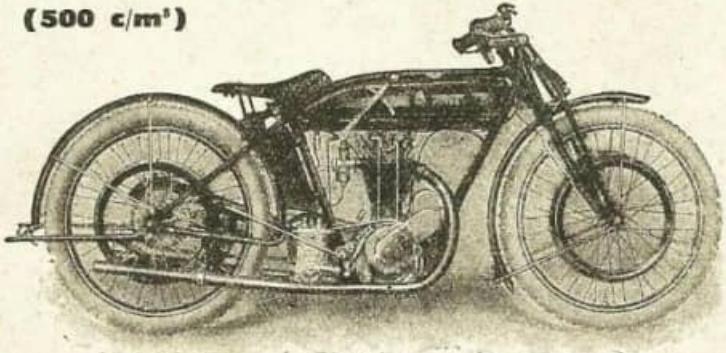
**Agenzia Generale Italiana "Clyno",
Via Vigone, 8 - TORINO - Telefono 49-13**

Stabilimenti S. A. FRERA
TRADATE (Como)

La superba sfornatrice di ogni marca e di ogni cilindrata nelle recenti gare della "Targa Florio," "Circuito Golfo Tigullio," "I° Criterium Invernale di Roma," e "Coppa Ravelli Brescia-Ponte di legno."

SUPER-SPORT V. 4

(500 c.m.³)



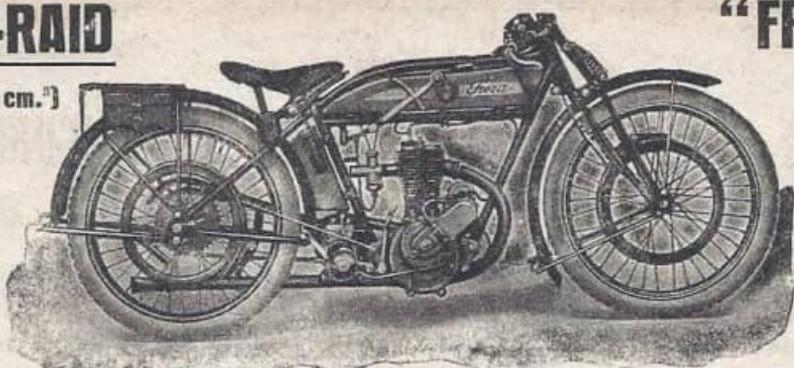
È in allestimento il nuovo Modello **SUPER-RAID**
3 1/2 HP di Grande Turismo.

Moto 3 1/2 F. Turismo o Raid
" 4 1/2 R. e 3 1/2 Cilindri
" 8/10 HP per Taxi con Sidecar
Gruppi 8/10 HP per Taxi (2-3 posti)

SUPER-RAID

3 1/2 HP (500 cm.³)

Velocità
circa
105 Km.



(Valvole laterali - Lubrificazione forzata)

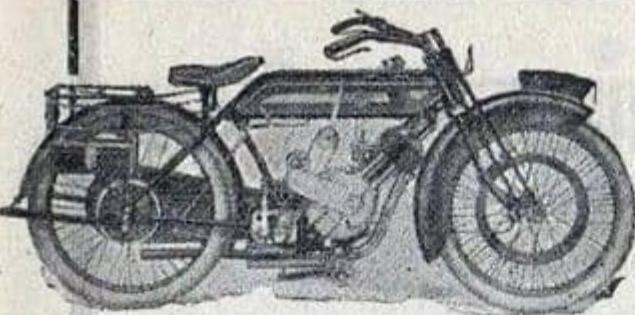
"FRERA,"

La Macchina
dello
Sportman
più
esigente!

Catalogo gratis a richiesta, portante anche il nostro
Modello **SUPER-SPORT V 4** a valvole in testa

LA MOTO PIÙ VELOCE DEL MONDO!

CATENE
COVENTRY

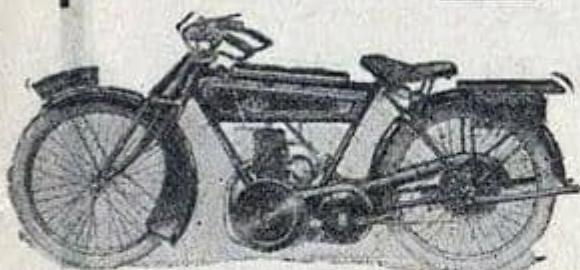


MOTO

P&M
THE PERFECTED MOTORCYCLE

della
PHELON & MOORE Ltd.
di LONDRA

HP. 4 1/2 - 4 velocità - Lubrificazione meccanica - Sella cantilever
IDEALE PER SOLO E SIDECAR



MOTO

LEVIS

della
BUTTERFIELDS Ltd.
di BIRMINGHAM

MODELLO DELLE DUE TEMPI
Vincitrice del TOURIST TROPHY 1922 e del GRAN PREMIO STRASBURGO 1922 (cat. 250 c.c.)

CARBURATORI
per auto e moto



della BROWN-BARLOW Ltd. di BIRMINGHAM

*"Il carburatore perfettamente semplice....
.....semplicemente perfetto."*

ALBERTO TRIVELLATO
Agente Generale per l'Italia
ROMA - Via San Martino al Macao, 25

1,000 MILES WORLD'S RECORD

obtained on FEB. 15th, 16th, and 17th

**DE LUXE
QUADRANT COMBINATION £110**

in 48 HOURS

**FOR JOURNEY LONDON - GLASGOW
AND BACK ZIG-ZAG COURSE**

by our London Agent, Mr. CLIFFORD WILSON, who
drove the whole distance and was A.C.U. observed.

**THE MOTOR CYCLE FOR EFFICIENCY
THAT WANTS MINIMUM ATTENTION.**

**MARCH NEWARK & CO., LTD.,
QUADRANT WORKS BIRMINGHAM.
CLIFFORD WILSON MFG. CO.,
177, WESTMINSTER BRIDGE ROAD, S.E.1.
— BRITAIN'S OLDEST MOTOR CYCLE —**

1923 Sporting Model.



Supplied to every make of Motor Cycle.
The product of 20 years' riding and manufacturing experience,
more comfortable than most heavy touring models. Graceful
and distinctive appearance. Strong enough for use with 8 h.p.
machines, light enough for use with 3½ h.p. sporting mounts.
£21 10 0 ready for the road.

COMPREHENSIVE CATALOGUE FREE ON REQUEST.

**DOUBLE YOUR PLEASURE
MONTGOMERY SMOKERS**
W. MONTGOMERY & CO., COVENTRY.

DO NOT BUY A MOTOR CYCLE UNLESS FULLY EQUIPPED FOR THE ROAD.

All TRIUMPH are fully equipped ready for the road—no extra to
pay for and no further worry or trouble when on the road at night.
Every Model is equipped with Lucas Electric Lighting Set, which
charges itself whilst running, giving instantaneous supply of brilliant
light and turns night riding into a pleasure.

**THE MOTOR CYCLE THAT GIVES
PERFECT SERVICE BOTH DAY AND NIGHT.**

Prices from £32 10s. 0d.

TRIUMPH

Order Monthly Terms which include a Special Insurance Policy.

Catalogues Free Post.

TRIUMPH CYCLE CO., LTD.,

COVENTRY.

London: 218, Gt. Portland
Street, W.1.; and at Leeds,
Manchester, and Glasgow,
Agents Everywhere.



**Buying an
Omega means
Saving money**

There's a model to suit your purse
in the 1923 range of Omega Motor
Cycles.

Two-Motor Motor Cycles from	£25
Four-Motor Motor Cycles from	£32
Six-Motor Combination from	£71

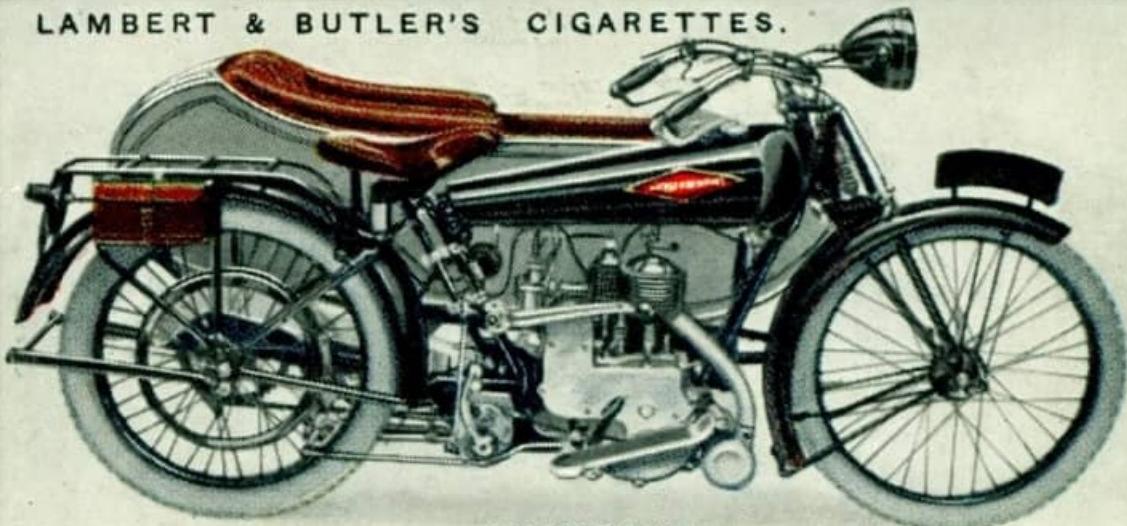
Each the best value obtainable.

Catalogue 1923
W. J. GREEN, LTD.,

OMEGA

PS: Having noted the Quadrant 48-hour run in this advert I looked out for a suitable illustration and came across this image on a Lambert & Butler cigarette car (back in the days when I was a nicotine addict I used to think L&B were rather upmarket. Who says marketing doesn't work?)

LAMBERT & BUTLER'S CIGARETTES.



QUADRANT.

And then I found a card from the same series illustrating the 1923 Omega which also featured in the block of four ads (from the Blue 'Un)...

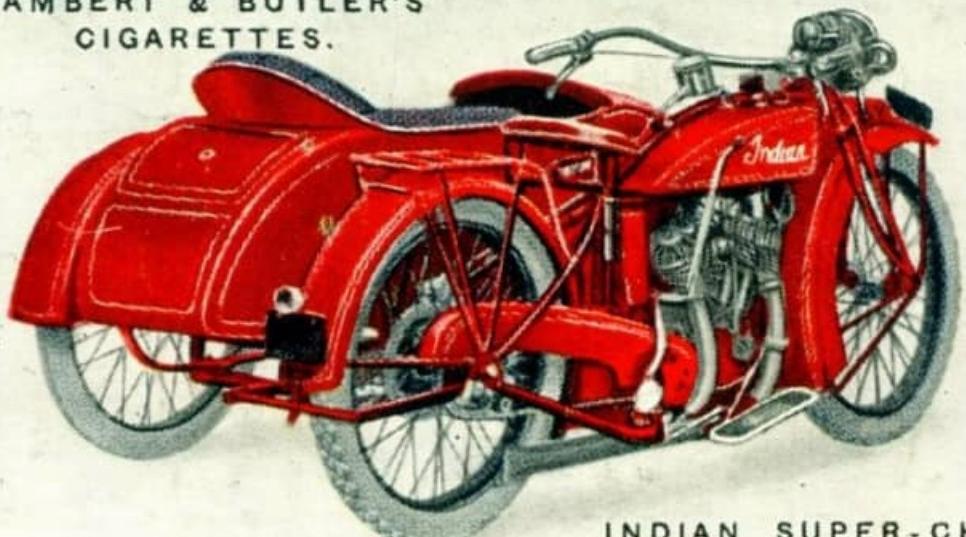


...and then I found some more L&B cards—it's good to see the 1923 crop in glorious colour...



...and, just because it's a particularly fine illustration, here's the Indian...

LAMBERT & BUTLER'S
CIGARETTES.



INDIAN SUPER-CHIEF.

And here's an equally fine Indian ad.

Indian



HENDEE MANUF. CO
SPRINGFIELD - U.S.A.

TRADE MARKS

LES 6 JOURS D'ÉCOSSE
(SCOTTISH 6 DAYS TRIALS)

L'épreuve sur route la plus dure

Du 7 au 12 MAI 1923

TRADE MARKS

L'ÉQUIPE
des
3 MOTOS **B.S.A.** **TYPE** **2 3/4**

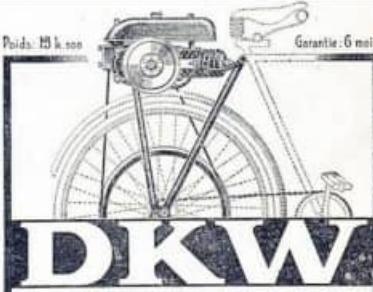
Termine l'épreuve sans aucune pénalisation et enlève de haute lutte :

1^o - 3 COUPES D'ARGENT (Récompense supérieure à la médaille d'or)
 2^o - LE PRIX D'ÉQUIPE (Coupe de régularité)
 3^o - LA COUPE DES FABRICANTS (Récompense suprême)

C'est la consécration d'un modèle dont la rapidité, le silence, la souplesse, la légèreté et l'élégance ne sont plus à démontrer et qui en course, aussi bien en France qu'à l'Etranger, ne compte que des succès.

C'EST LA MOTO IDÉALE DU TOURISTE AMATEUR

LA COMPAGNIE B. S. A 31, Rue de la Folie-Méricourt, PARIS (XI^e)
Téléphone : Roquette 39-75 et 85-81.



Poids: 18 kgs. Garantie: 6 mois

DKW

Moteur 1 HP 1/4 pour Vélos
s'adapte, sans aucune transformation,
sur n'importe quelle bicyclette.
Monte toutes les côtes sans pédaler
Prix : 850^f compiet
déjà 25000 en circulation dans le Monde

Notice T.C.F. illustrée envoyée gratuitement.
S.I.C., 12, Rue Nouvelle, PARIS (9^e)



DKW
LEICHTKRÄFTIGER
EINBAUMOTORE

DKW
DAS KLEINE WUNDER
MÜHT BERGAUF, WIE ANDRE RÜNTEN
ZSCHOPAUER
MOTORENWERKE
J. S. RASMUSSEN
ZSCHOPAUER

S.T.C. présente sa nouvelle

Moto-légère (moteur D.K.W. 2 CV)
SIMPLE — SOUPLE — STABLE
Facilités de paiement en 13 mois

Prix : 1.795 Fr.

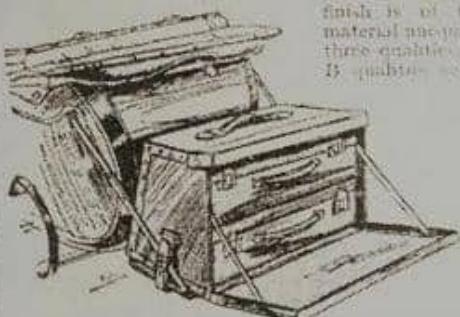


Notice T.C.F. illustrée envoyée gratuitement.
S.I.C., 12, rue Nouvelle, PARIS-9^e

Dunhill's

Limited FOR HIGH-CLASS TRAVEL REQUISITES MODERATELY PRICED.

"Dunhill's" have specialised in waterproof garments for many years. The cut and finish is of the highest class and the material unequalled. The suits are made in three qualities - A and C and the A and B qualities carry a two years' guarantee.



The Dunhill "Two-in-One" Trunk, one of the neatest and most useful trunks yet manufactured. The dust cannot penetrate, and the inner cases are as fresh at the end of the journey as when first packed.
Price from £2 - 10 - 0.

New 44-page Catalogue of Clothing and Accessories sent post free on application.

359-361, EUSTON RD., LONDON, N.W.1
2 CONDUIT STREET, W.1. GLASGOW: 72, ST. VINCENT STREET.

Chesse sidecar display

SUPER-RAID 3 1/2 HP
"FRERA"
a valvole laterali
Velocità circa 105 Km.ora

Soc. FRERA Stabilimenti in TRADATE

SUPER-SPORT 3 1/2 HP
"FRERA"
a valvole in testa
Le Moto più veloci del mondo

CHESSONE LITIUMI E METALLI
DEI SUOI MOLTI MODELLI
COME SEMPRE ALTRI TIPI, 3 1/2
+ 1 1/2 HP, SONO APPREZZATI.

Stabilimenti S. A. FRERA
TRADATE (Como)

La sua moto ha partecipato alle gare della "Targa Florio", "Criterium Invernale", "Coppa Gallo Tigellino", "Coppa Ravelli Brescia-Duino di Legno", e "Coppa Roma".

SUPER-SPORT V. 4

(500 c.m³)



È in allestimento il nuovo Modello SUPER-RAID
3 1/2 HP di Grande Turismo.

Moto	3 1/2 F Turismo e Raid
"	4 1/2 R. o 3 1/2 2 Cilindri
"	0,10 HP sedile e con Sidecar
Gruppi	8/10 HP per Tandem (2-3 posti)

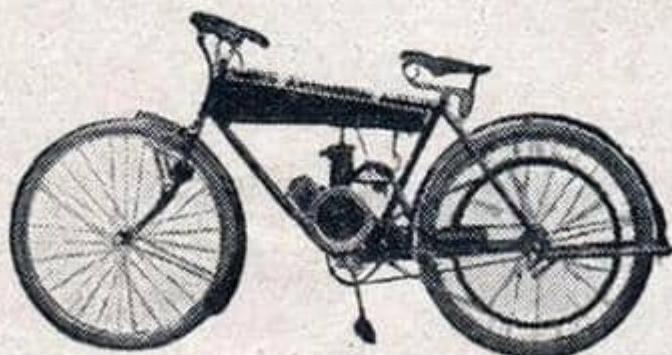
BORDEAUX-PARIS 1922

Catégorie amateurs
1^{er} Hersard, sur bicyclette

GRIFFON

Concours du Touring Club de France motoclette GRIFFON gagnante d'une Coupe de Régularité

GRIFFON



Bol d'Or : 1^{er} Griffon



Motorino tedesco
ausiliario per
bicicletta comune

MOTORETTE

- 2 TEMPI -
Diametro 50
Corsa 50

Forza effettiva HP 1 1/2 - Massima semplicità - Esente da tassa ed esame di guida.
L. 1850 franco G. V. stazione cliente - Spedizione immediata.

D.^r ALFREDO FUBINI - Corso Re Umberto, 15 - TORINO

Disponibili altri tipi tedeschi: PAQUÈ, 4 tempi, 54 × 60 — HELLA, 2 tempi, 50 × 60 - ecc.

MOTO
P&M
THE IMPERFECT MOTORCYCLE
della
PHILBIN & MOORE Ltd.
di LONDRA

HP 4 1/2 - 4 velocità - Lubrificazione meccanica - Sella cantilever
IDEALE PER SOLO E SIDECAR

MOTO
LEVIS
della
BUTTERFIELDS Ltd.
di BIRMINGHAM

MODELLO DELLE DUE TEMPI
Vincitrice del TOURISME TRAJECT 1922 e del GRAN PREMIO STRASBURGO 1922 (200 km.c.)

CARBURATORI
per auto e moto
della BROWN-BARLOW Ltd. di BIRMINGHAM
"Il carburatore perfettamente semplice....
.....semplicemente perfetto"

ALBERTO TRIVELLATO
Agente Generale per l'Italia
ROMA - Via San Martino al Macao, 25

Le **MOTEURCYCLE** **L. ROSENGART**

Breveté S. G. D. G.
GROUPE AMOVIBLE POUR BICYCLES
Primé par le Touring-Club de France

DESCRIPTION :
Moteur à 2 temps.
Volant intérieur sur billes.
Carburateur automatique.
Magnéto haute tension «Désors».
Réservoir 1 litre 2/4.



DESCRIPTION :
Démontage par levier.
Poids : 10 kilogrammes.
Vitesse : 25 km. à l'heure.
Consommation : 1 à 2 litres aux 100 kilomètres.

SUPPRIME :
LES CHAINES, COURROIES OU POULIES,
LE MONTAGE COMPLIQUE,
LE PORTE À FAUX (Équilibrage parfait),
LES PROJECTIONS D'HUILE,
LE RÉSERVOIR A ESSENCE.

MAGASIN DE VENTE ET EXPOSITION :
Etablissements L. ROSENGART, 21, Avenue des Champs-Élysées, PARIS
Téléphone : ALTO 19100. ALTO 19101.

La première machine française construite en grande série

LA MOTOCYCLETTE LÉGÈRE
Smart

LES ATELIERS DE MORNANT (Sous-sécession Marseillaise à Mornant) 93007 Paris

Pour un prix inférieur à celui d'une bicyclette à moteur
VOUS AVEZ UNE
MOTOCYCLETTE LÉGÈRE
Souple, Robuste, Régulière, Propre, Élégante, Particulière

CEST UNE MACHINE
QUI PRÉSENTE TOUTES LES PERFECTIONNEMENTS DES MOTOCYCLES
et EST PLUS AVANTAGEUSE
QUE TOUT CE QUI S'EST FAIT JUSQU'ICI

Ateliers de Construction et Distribution
MOTOCYCLES SMART, 20, 21, Quai de la Tournelle, 75 et 77 - PARIS
téléphones : TELE 19100 - 19101 - 19102 - 19103

La première Motocyclette Française construite en grande série

LA MOTOCYCLETTE LÉGÈRE
Smart

POUR UN PRIX INFÉRIEUR À CELUI D'UNE BICYCLETTE À MOTEUR, LA
Smart

EST UNE MACHINES BIEN FAITE
TOUTES LES PARTIES SONT FAITES
MOTOCYCLES À MOTEUR, LA
QUE TOUT SE SUIT BIEN ET CORRECTEMENT

1.900 francs

La Motocyclette **Smart**, 2 HP

Motorisation 2 temps 2 cylindres, 800 cm³. 2 vitesse. Transmission par chaîne et bielle. Vélocité moyenne 50 km/h. Poids 100 kg. Consommation 1 à 2 litres aux 100 km. Accélération 0 à 50 km/h en 10 secondes. Poids en charge 120 kg. Dimensions 190 x 70 x 100 cm.

La Motocyclette **Smart**, 2 HP
EST UNE MACHINES BIEN FAITE
TOUTES LES PARTIES SONT FAITES
MOTOCYCLES À MOTEUR, LA
QUE TOUT SE SUIT BIEN ET CORRECTEMENT

PRODUCTION 100 MACHINES PAR JOUR

PARIS, 19100 - 19101 - 19102 - 19103

TRIUMPH

Non mai, prima d'ora, un nuovo Modello di macchina ebbe a suscitare tanto profonda e duratura impressione nel gran pubblico dei Motociclisti, quanto la **3 1/2 HP TRIUMPH** con motore a valvole in testa. D'altra parte la notevolissima richiesta di questo nuovo tipo costituisce assai significativa prova del suo eccezionale valore.

Una così entusiastica accoglienza è più che giustificata dalla grande soddisfazione che tale macchina concede a' suoi possessori: sia per la perfetta regolarità di funzionamento del suo prodigioso motore nelle più diverse circostanze, sia per i risultati conseguiti in gare e concorsi nelle cinque Parti del Mondo.



TRIUMPH CYCLE Co., Ltd.

COVENTRY
(England)

CATALOGO ILLUSTRATO
GRATIS
AGENTI IN TUTTA ITALIA

TRIUMPH

Per comfort e velocità la **Triumph** è imbattibile, giacchè i Modelli 1923 costituiscono quanto di meglio possa offrire l'industria al Motociclista.

Qualità del dopo guerra
Prezzi dell'ante guerra

Il nostro ultimo catalogo può essere ottenuto da uno qualsiasi dei nostri Agenti in Italia o direttamente da noi.

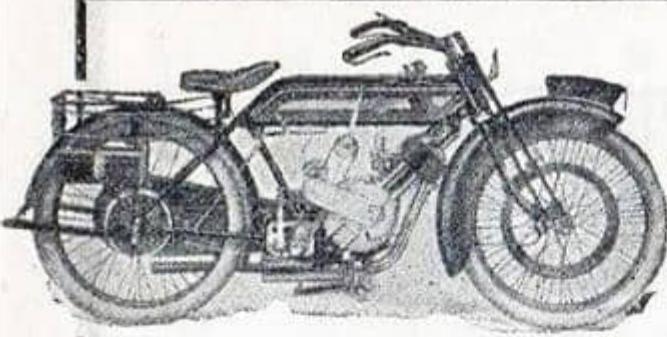
TRIUMPH CYCLE Co., Ltd.

COVENTRY
(England)

CATALOGO ILLUSTRATO GRATIS

AGENTI IN TUTTA ITALIA



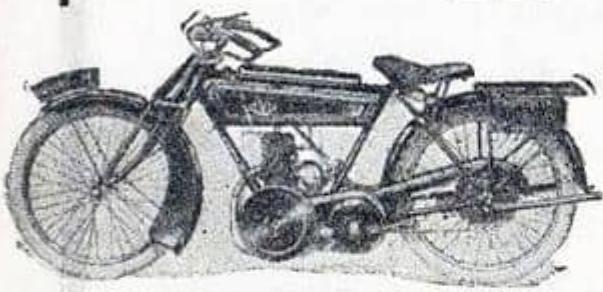


MOTO

P&M
THE PERFECTED MOTORCYCLE

della
PHELON & MOORE Ltd.
di LONDRA

HP 4 1/2 - 4 velocità - Lubrificazione meccanica - Sella cantilever
IDEALE PER SOLO E SIDECAR



MOTO

LEVIS

della
BUTTERFIELDS Ltd.
di BIRMINGHAM

MODELLO DELLE DUE TEMPI
Vincitrice del TOURIST TROPHY 1922 e del GRAN PREMIO STRASBURGO 1922 (cat. 250 c.c.)

CARBURATORI
per auto e moto

B&B

della BROWN-BARLOW Ltd. di BIRMINGHAM

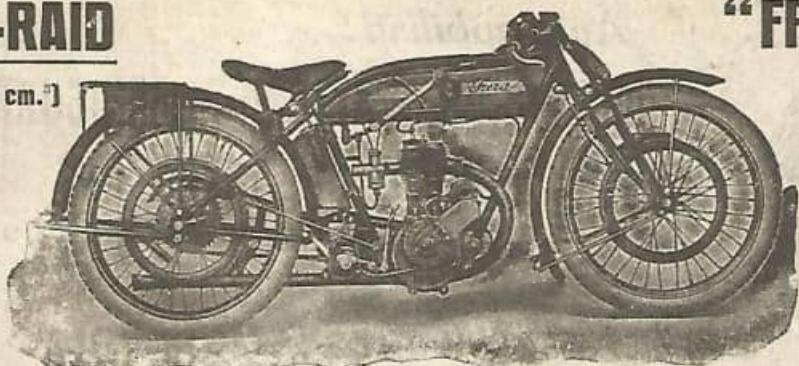
*"Il carburatore perfettamente semplice....
.....semplicemente perfetto"*

ALBERTO TRIVELLATO
Agente Generale per l'Italia
ROMA - Via San Martino al Macao, 25

SUPER-RAID

3 1/2 HP (500 cm.³)

Velocità
circa
105 Km.



(Valvole laterali - Lubrificazione forzata)

"FRERA,"

La Macchina
dello
Sportman
più
esigente !

Catalogo gratis a richiesta, portante anche il nostro
Modello **SUPER-SPORT V 4** a valvole in testa

LA MOTO PIÙ VELOCE DEL MONDO !

CATENE
COVENTRY

The CAMEO WINDSCREEN

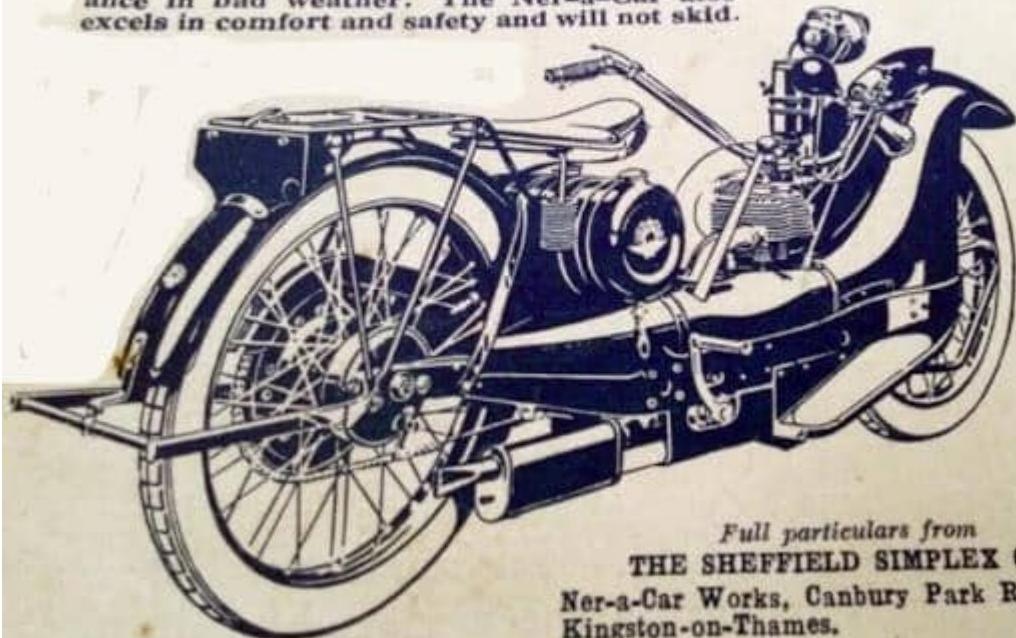
YOUR LADY
WELL PROTECTED!

CAN BE FITTED TO ANY MAKE
OF SIDE-CAR IN A FEW MINUTES.

SOLE MANUFACTURERS: OLLARD WESTCOMBE & CO LTD 46/47 GREAT CHARLES ST. BIRMINGHAM

The
NER-A-CAR

On no other Motor Cycle can you ride in ordinary attire—without overalls—and retain a clean and respectable appearance in bad weather. The Ner-a-Car also excels in comfort and safety and will not skid.



Full particulars from

THE SHEFFIELD SIMPLEX CO.
Ner-a-Car Works, Canbury Park Road,
Kingston-on-Thames.

Telephone . Kingston 3320 & 3321. Telegrams : Shefflex, Kingston-on-Thames.

HERBERT ROBINSON CAMBRIDGE



CRASH HELMETS.

Approved by the A.C.U. As worn in the T.T. races 32/6. Peak 2/6 extra. Postage 1/- extra.

We have appointed The Braddan Motor & Cycle Depot, 47 & 57a, Athol Street, Douglas, I.O.M., as Agents, where these Helmets are obtainable.



FINAL HUGE PURCHASE OF W.D. $2\frac{3}{4}$ h.p. DOUGLAS SPARE PARTS.

Guaranteed Genuine Douglas Manufacture.

Owing to the fact that we have purchased the whole of the remaining W.D. Stock of $2\frac{3}{4}$ Douglas Spares, we shall be quite unable to replace the following when once exhausted. We have made up the following useful parcels which no Douglas rider should be without.



LES 6 JOURS D'ECOSSE (SCOTTISH 6 DAYS TRIALS)

L'épreuve sur route la plus dure

Du 7 au 12 MAI 1923

L'ÉQUIPE
des
3 MOTOS

B.S.A. TYPE
2 3/4

Termine l'épreuve sans aucune pénalisation et enlève de haute lutte :

1^o - 3 COUPES D'ARGENT (Récompense supérieure à la médaille d'or)

2^o - LE PRIX D'ÉQUIPE (Coupe de régularité)

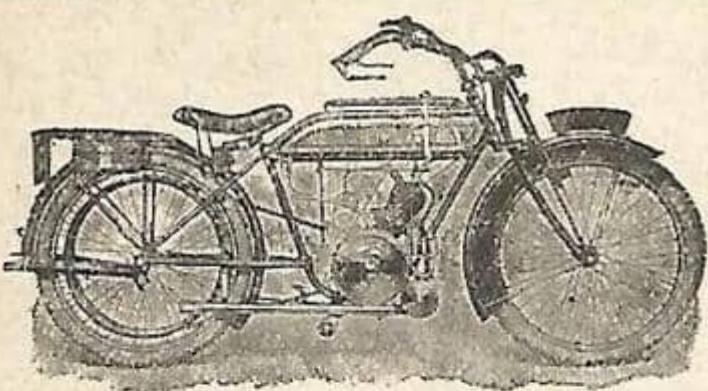
3^o - LA COUPE DES FABRICANTS (Récompense suprême)

C'est la consécration d'un modèle dont la rapidité, le silence, la souplesse, la légèreté et l'élégance ne sont plus à démontrer et qui en course, aussi bien en France qu'à l'Etranger, ne compte que des succès.

C'EST LA MOTO IDÉALE DU TOURISTE AMATEUR

LA COMPAGNIE B. S. A

31, Rue de la Félie-Méricourt, PARIS (X^e)
Téléphone : Roquette 89-75 et 85-81.



2 1/2 HP **CLYNO** 2 tempi

La migliore MOTOLEGGERA

PESA Kg. 55
SUPERA TUTTE LE SALITE
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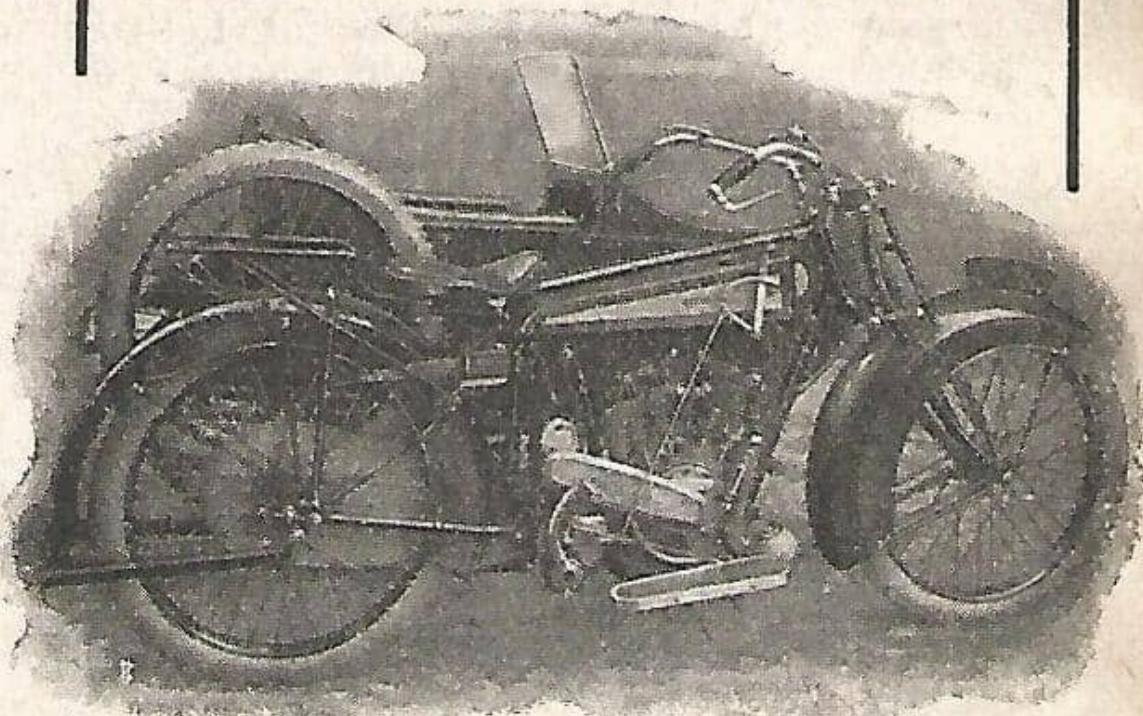
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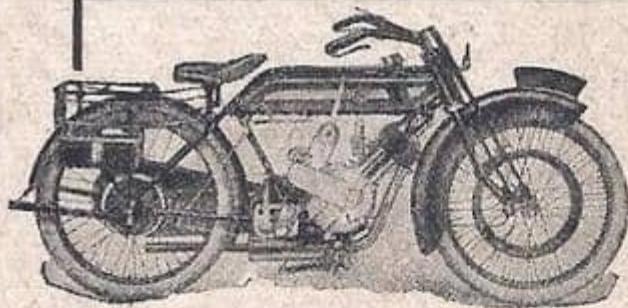
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"La Revue Motocycliste"

39

PARIS-NICE

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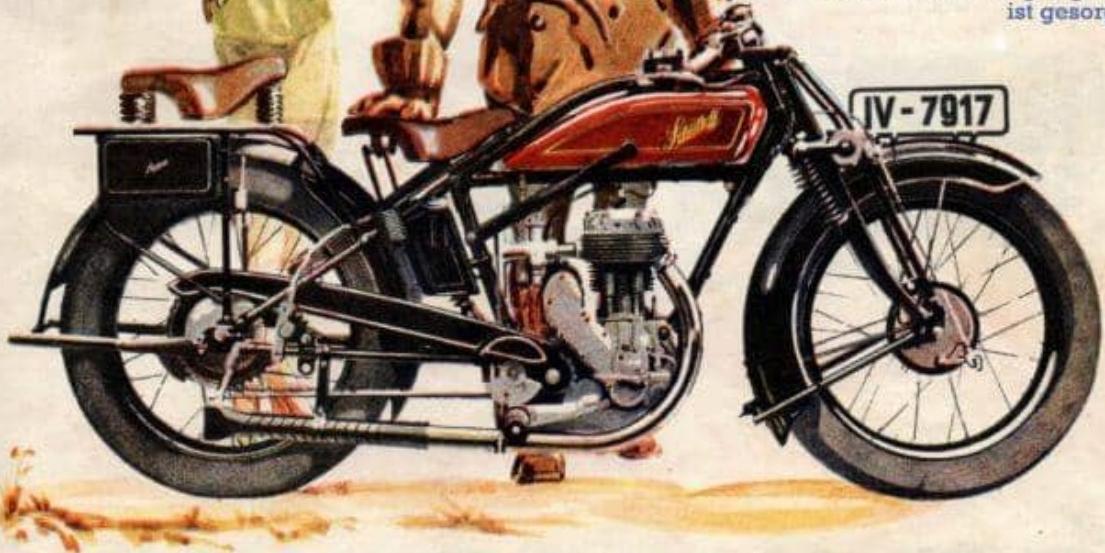
Zum großen Finale der Sonderausstellung
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1924



"An amazing new

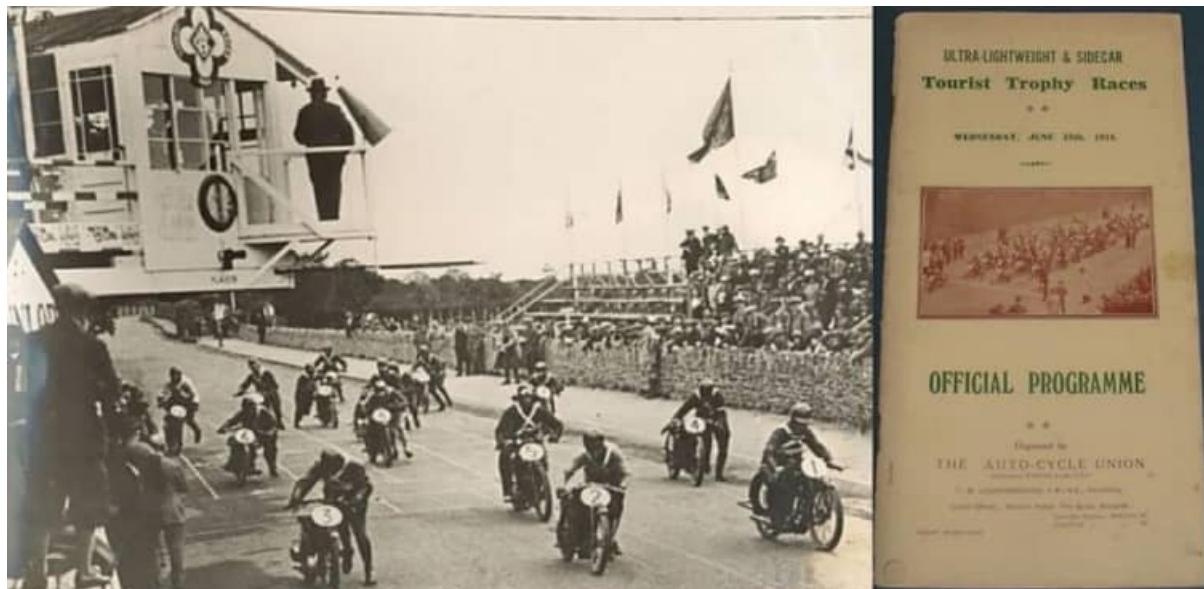
motor-hoop of the speedway." Yes, of course it's American.

THE FEDERATION OF AMERICAN Motorcyclists had closed down during the war. Now it was replaced by The American Motorcyclist Association (AMA) with the slogan: 'An Organised Minority Can Always Defeat a Dis-organised Majority'



Pismo Beach in Southern California was the scene of an annual rally throughout the 1920s. Clubs represented included the San Jose and San Francisco MCs; note the IUS fashion for military-style uniforms; the 'Frisco club was celebrating its 20th birthday.

THE TT PROGRAMME WAS EXPANDED to include an Ultra-Lightweight race for bikes up to 175cc. Following the first massed start in TT history 17 riders covered three laps; first man home was Jock Porter (New Gerrard) at 51.2mph, ahead of Freddy Morgan and Chris Stead, both riding Cottons. The 59 Junior entrants represented 23 marques, most with factory support. Having lost out in 1923 AJS was back in force with 10 starters. They faced opposition including six Dots, five New Imperials and four entries apiece from Matador, New Hudson and Cotton (whose team included Stanley Woods). On the first lap Jimmy Simpson (AJS), Wal Handley (Rex Acme) and Len Horton (New Imperial) broke the 60mph barrier—but all three dropped out with mechanical problems leaving Ken Twemlow (New Imp) to win, at 56.57mph, ahead of S Ollerhead (Dot) and IHR Scott (AJS). Following the excitement over the first Sidecar TT in 1923 only 10 combos started in 1924. The capacity limit, once again, was 600cc but three 350s took the field—and while George

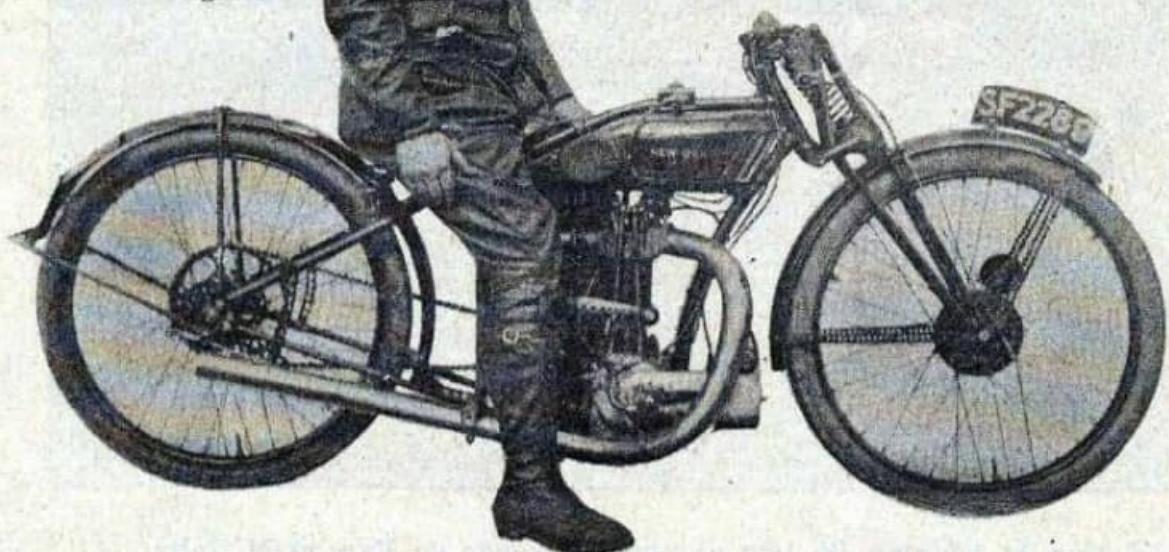


They're off! The 175s get under way in the TT's first massed start. Jock Porter, carrying the '1' plate, went on to win. (Right) The first Ultra Lightweight TT was followed by the second Sidecar TT.



Here's another view of the Ultra Lightweight massed start.

Porter, coureur et constructeur de la New-Gerrard, sur sa 175 cme. victorieuse. Remarquer les allégements nécessaires pour amener sa machine au poids de 70 kilos maximum autorisé au T. T. anglais.

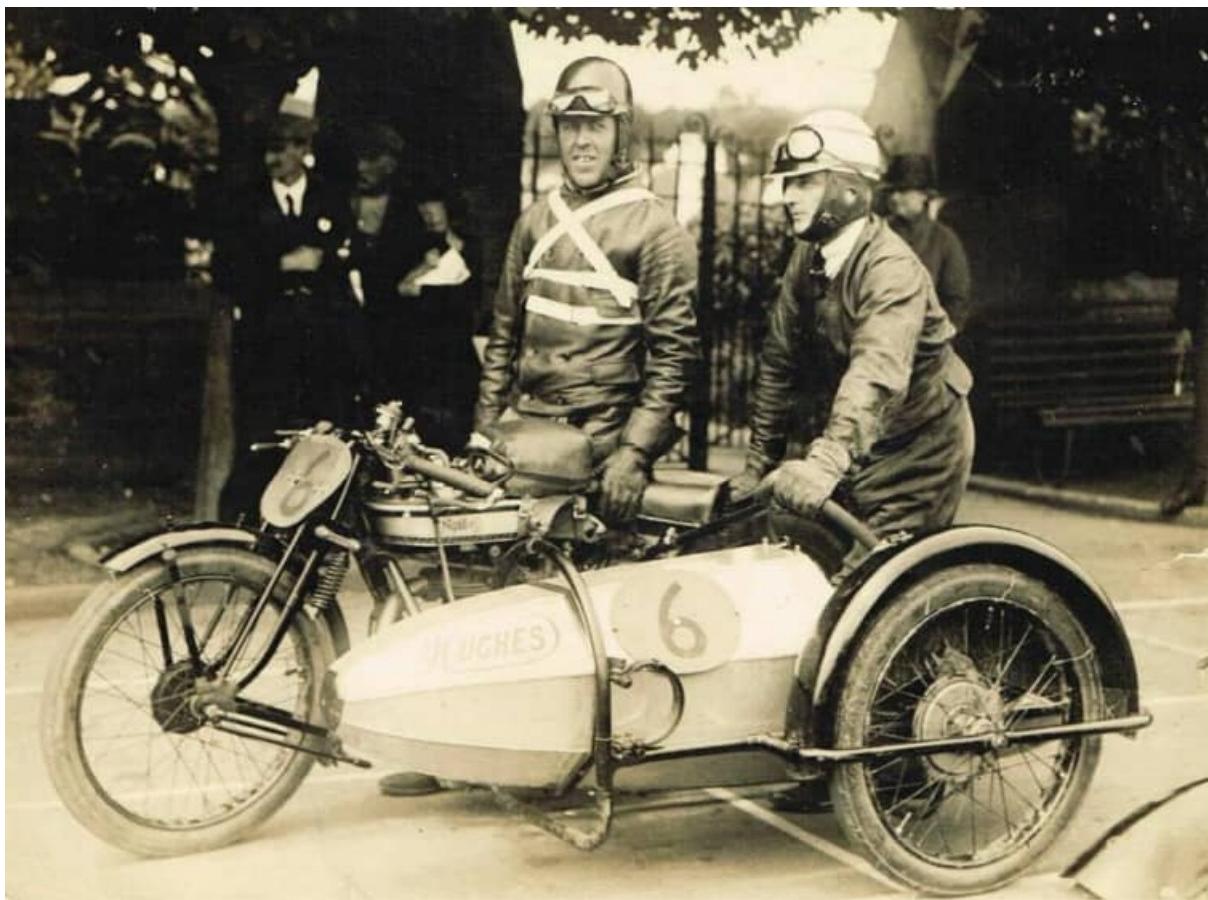


Jock Porter as depicted in a French bike mag: even my schoolboy French tells me he's described as the rider, builder and designer of the victorious 175cc New Gerrard. And we're asked to note the mods needed to meet the Ultra Lightweight 70kg limit. Ok, it has a number plate and mudguards, but what happened to the TT ideal of encouraging the evolution of sturdy roadsters?

Tucker's 588cc Norton was first past the flag at 51.31mph, they finished 2nd 3rd and 4th. Runner-up was Harry Reed (Dot-Bradshaw), ahead of the memorably named Almond Tinkler (Matador) and JW Taylor (New Scale). Another 588cc Norton, piloted by George Grinton, was 5th and that was that: five of the seven 600s failed to finish. But the Norton boys were mighty pleased: having entered every TT this was their first win since Rem Fowler's twin-cylinder victory in 1907. The Lightweights and Seniors ran together with the first of 35 500s setting off five minutes after the last of 21 250s. This was fine for the spectators as both races ended at about the same time but it made life interesting for the riders as the big 'uns carved their way through the little 'uns. As TT competitor and historian GS Davison explained: "On the bumpy,



Messrs Tucker and Bennett did Norton proud with wins in the Sidecar and Senior TTs.

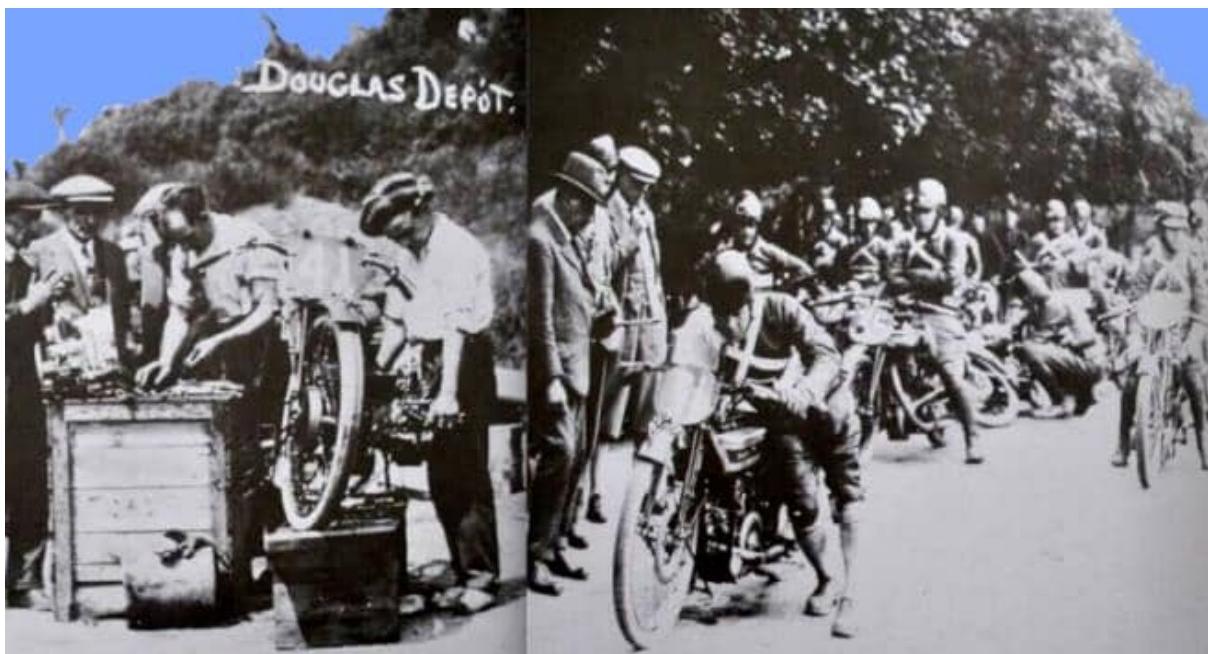


George Tucker and Walter Moore with their TT winning Model 18 Norton combo.

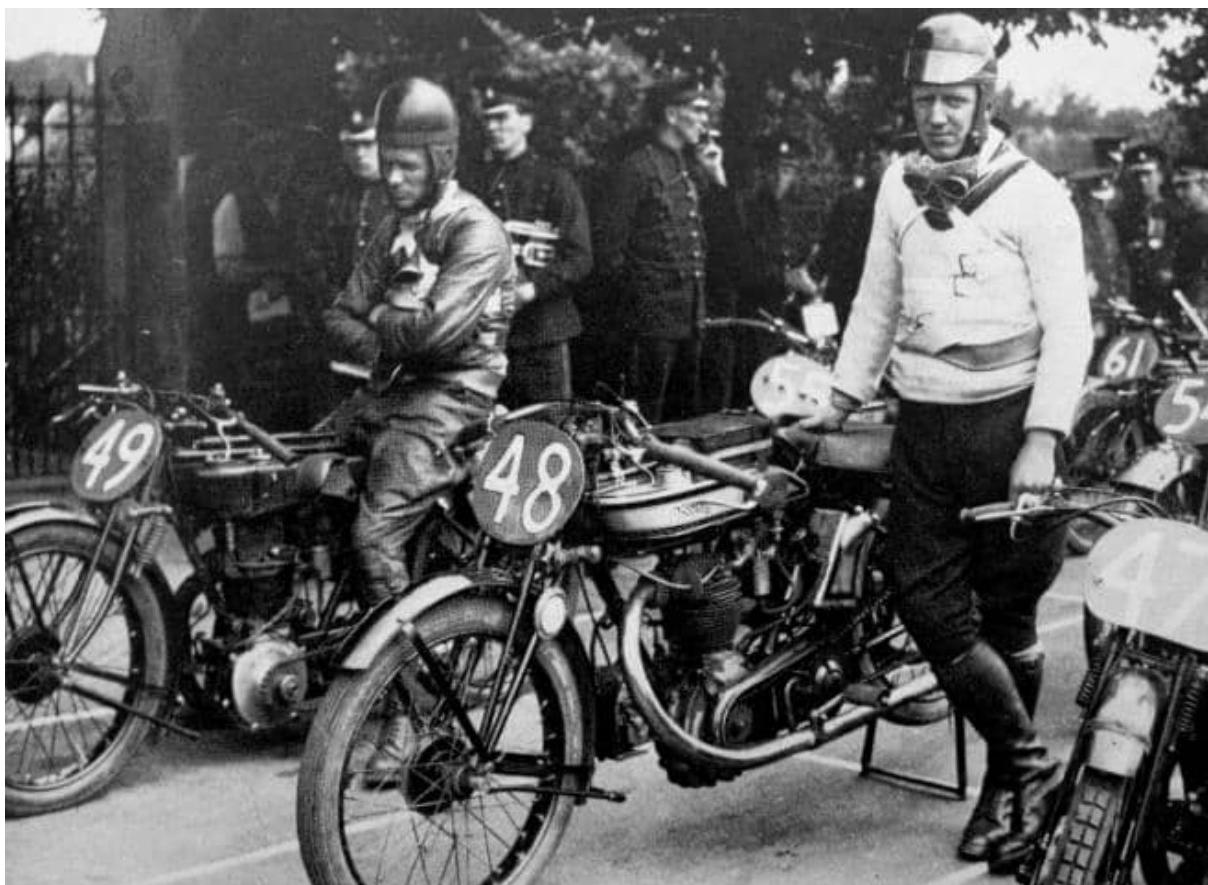
dusty Mountain track there was often only one rut to follow and consequently the 500s had to queue to go by.” Having won the Sidecar TT Norton took the Senior trophy too, courtesy of Alec Bennet, now in the Norton team, at 61.64mph (his second TT win and the first to be won at more than 60mph) ahead of Harry Langman (Scott) and Freddie Dixon (Douglas). They also averaged better than 60mph. Only 15 Seniors completed their six laps; drop-outs included Messrs Simpson and Woods. As usual Wal Handley led the first Lightweight lap on his Rex-Acme, ahead of the previous year’s winner, Jock Porter (New Gerrard). They swapped places on the second lap but neither finished the race, which was won by Edwin Twemlow (New Imperial) at 55.44mph, ahead of HF Brockbank (Cotton) and J Cooke (Dot).



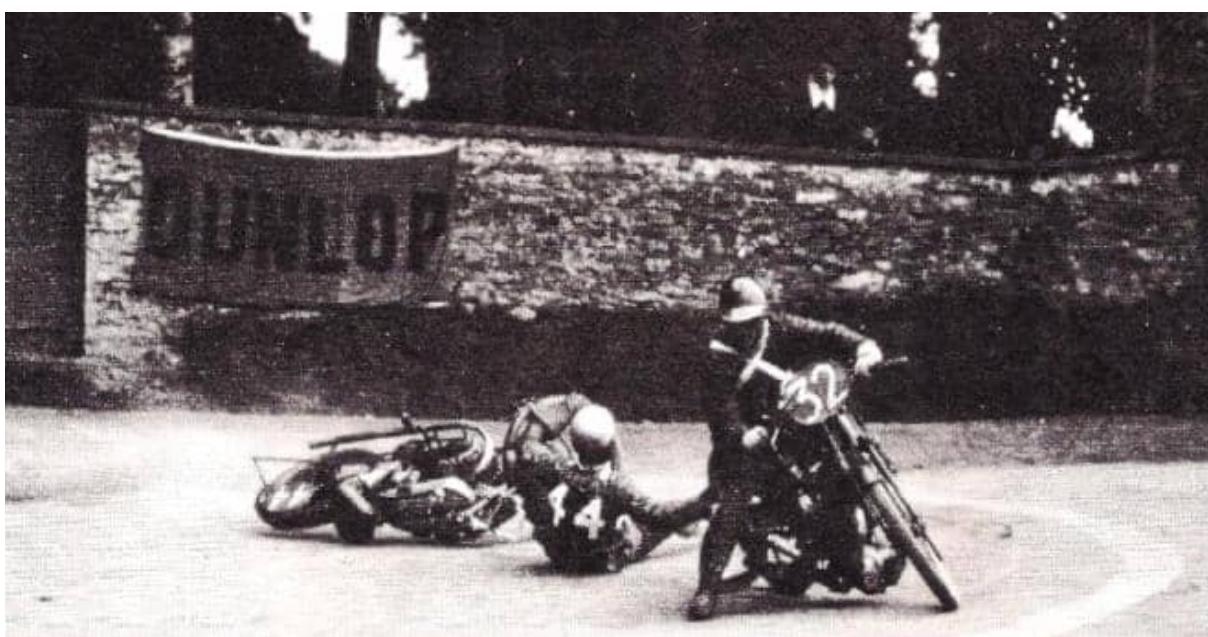
Edwin Twemlow took the flag in the Lightweight TT.



Freddie Dixon, wearing a tam-o-shanter, extracts the engine from his Douglas. (Right) Dixon was first man to start; no-one caught him until he crashed at Governors Bridge but he remounted and finished third having set the fastest lap.



Tommy Simister and his Model 18 Norton at the start of the Senior; he finished fourth.



BERT LE VACK RODE A 996CC OHV JAP-engined Brough Superior Brooklands Special with Castle forks along a highway outside Paris to set a flying-kilometre record of 119.1mph. Its cradle frame and mechanical oil pump were incorporated into a new roadster, the SS80, named for its guaranteed 80mph capability (a Brooklands certificate stating that the complete machine as delivered to the customer had exceeded 80mph could be supplied at an extra cost). Before the end of the year the sidevalve SS80 was joined by an even more potent stablemate, the ohv

ton-up SS100, which joined a select band of ohv big twins that would set the standard for high-performance motor cycles until World War Two.



Levack's record breaking BruffSup...phwoar!



Birth of a legend: the Brough Superior SS100.



The SS80 was overshadowed by its ohv stablemate but was an exceptional motor cycle in its own right.



Cameron Croft only made motor cycles from 1923-26, but they were exceptionally fine motor cycles that competed on equal terms with the latest Brough Superiors, as well as the Coventry Eagle Flying Eights and Montgomery Anzani's. Most of them were powered by 996 or 1,087cc Anzani engines and were marketed as Croft-Anzani's. Croft produced a duplex loop frame which, the Green 'Un reported, offered "great lateral rigidity and, consequently, good steering". The leaf-sprung front fork was sourced from Montgomery. All of which might explain why this 1924 example sold, in 2016, for £203,000.



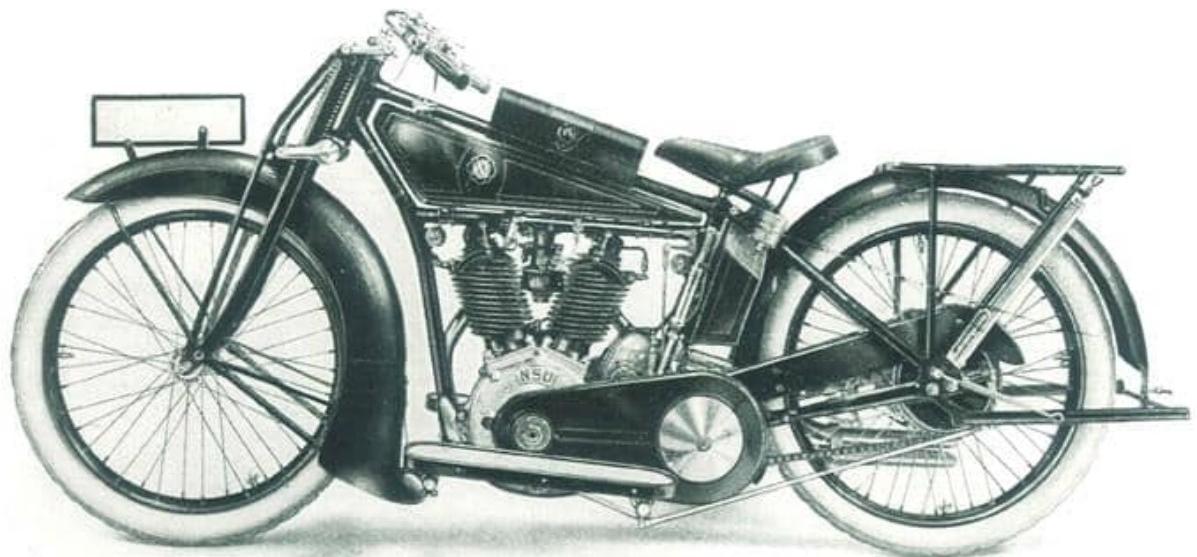
As an aside, have you noticed the wings to either side of the Croft's headlamp? They were popular accessories in the 1920s which have been all but forgotten, so I've fitted wings to my Beeza and Panther.



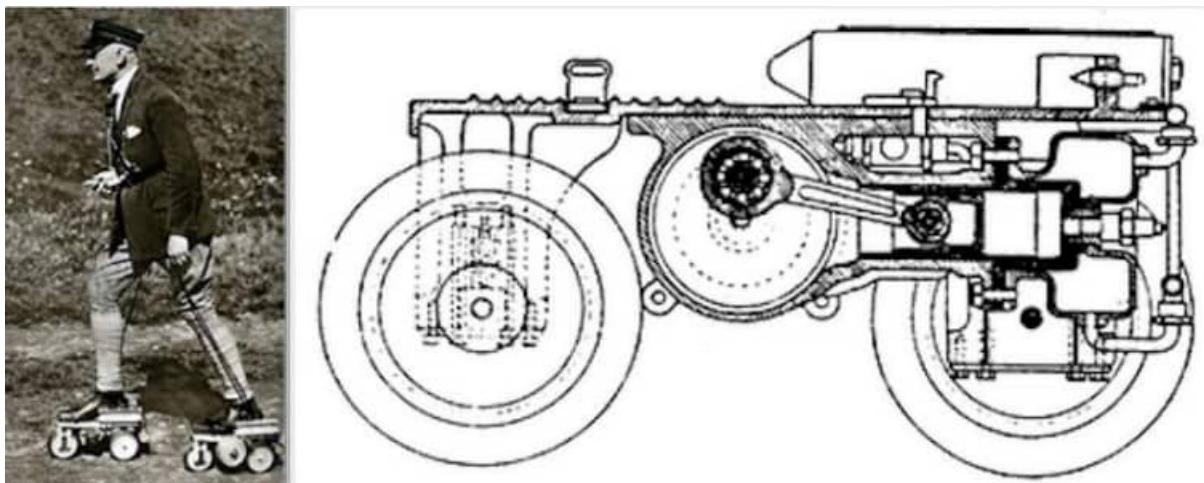
As if we need an excuse, having mentioned the Croft's competitors here's the Anzani-powered Montgomery...



...and the Coventry Eagle Flying Eight...



NSU tuned up its 1,000cc V-twin but not enough to bother the Broughs. Rated at 12hp it was the first NSU to do the ton, but only in km/h.



If you really couldn't afford a super-sports big twin Hans Gebhardt of Munich could sort you out with a pair of his acetylene-fuelled skates; top speed, about 30km/h, but I bet they felt faster.

BROUGH SUPERIORS WERE SOMETIMES called the Rolls Royce of motor cycles; in the USA the four-pot Ace, built in Philadelphia by Tom and Will Henderson since 1920 (when, you may recall if you've read the 1920 page, they sold the Henderson Motorcycle Company to Ignatz Schwinn), became known as the Dusenberg of motorcycles. And while the BruffSup's 119mph record-setting run was commendable, it was put into the shade by an Ace's claimed 134mph (albeit without FICM ratification). Not to be left out a Henderson in the capable hands of murderdrome veteran Freddie Ludlow was timed at 127.1mph.



The Ace was known as the Dusenberg of motor cycles. (Right) Freddie Ludlow on his streamlined Henderson after his 127mph run.

BY YEAR'S END there were more than 500,000 motorcycles on British roads.

P&M LAUNCHED A SPORTY OHV 500 and named it the Panther. The motor was coupled to a four-speed gearbox which was made for P&M by local tractor builders David Brown. The Panther came in three forms, the Sports model; the Continental model with pillion seat, Zenith carb and a twistgrip; and the Touring model with enclosed chains and CAV electric lighting. The Yorkshiremen clearly liked the name because within a few years P&M became Panther. New Hudson, Raleigh and Royal Enfield also came up with ohv designs; Rudge offered a 500cc version of its four-valve, four-speed 350.



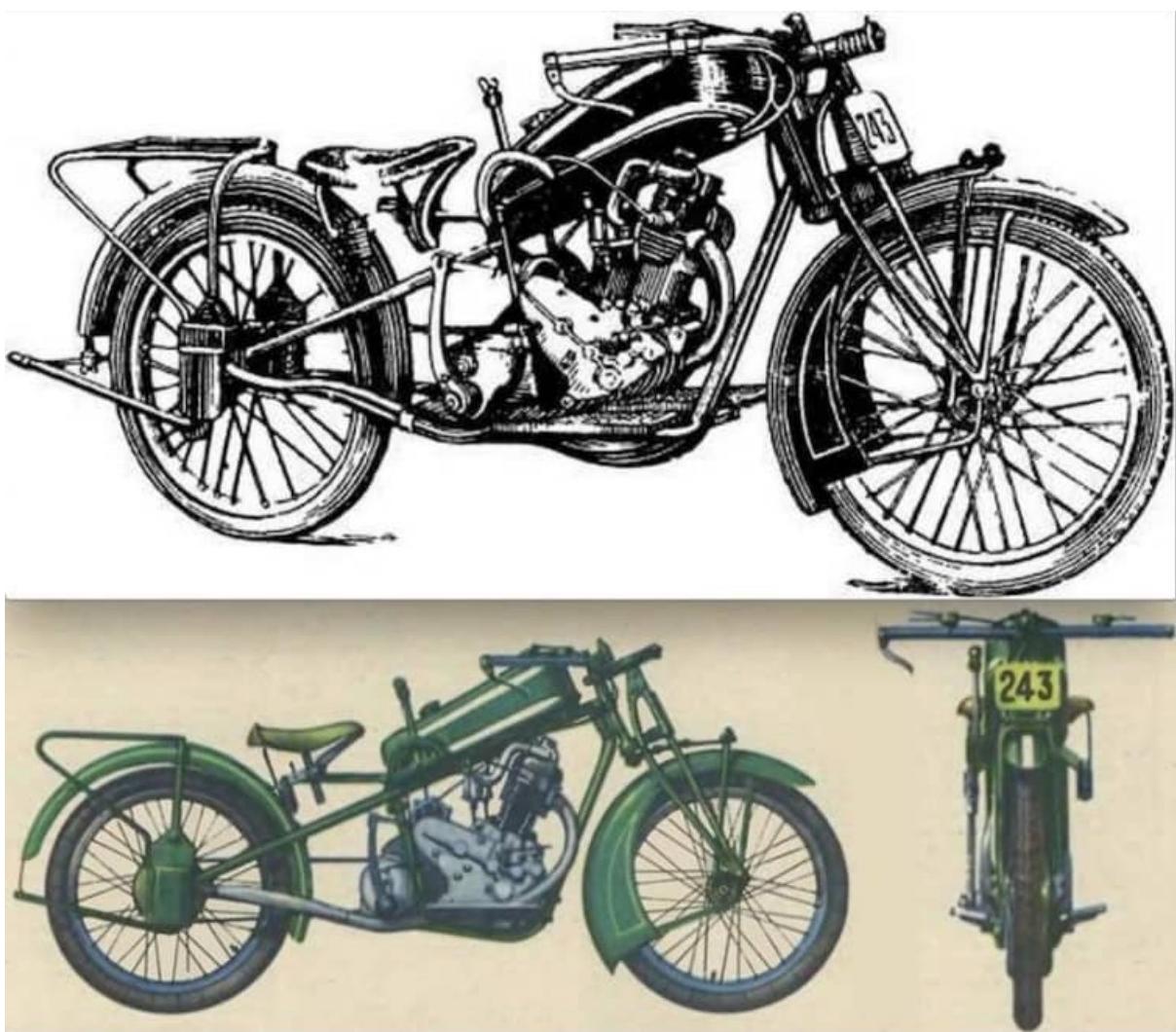
Not many models gave their names to a marque, but the Panther did.



Rudge launched a 500cc four-valver that would have an illustrious future.



In Czechoslovakia Itar was producing the 750cc Type B for military use but (right) this well-engineered flat twin was also available on civvy street. Itar also used JAP singles.



The first motorcycle made entirely in Russia was the 500cc IOE Soyuz with three-speed box. It was designed at the Dux bicycle plant in Moscow by P Lvov, E Gropius, A Sedelnikov and Ivan Uspensky and built at the State Aviation Plant No1. Front suspension featured a leaf-spring and fore-and-aft coil spring a la Triumph with plunger rear suspension, a sprung seat, 200mm ground clearance and 26x3in tyres. All of which says a lot about the state of Russian roads. The prototype Soyuz was ridden in the All-Union run but retired after 200km and never went into production.



To

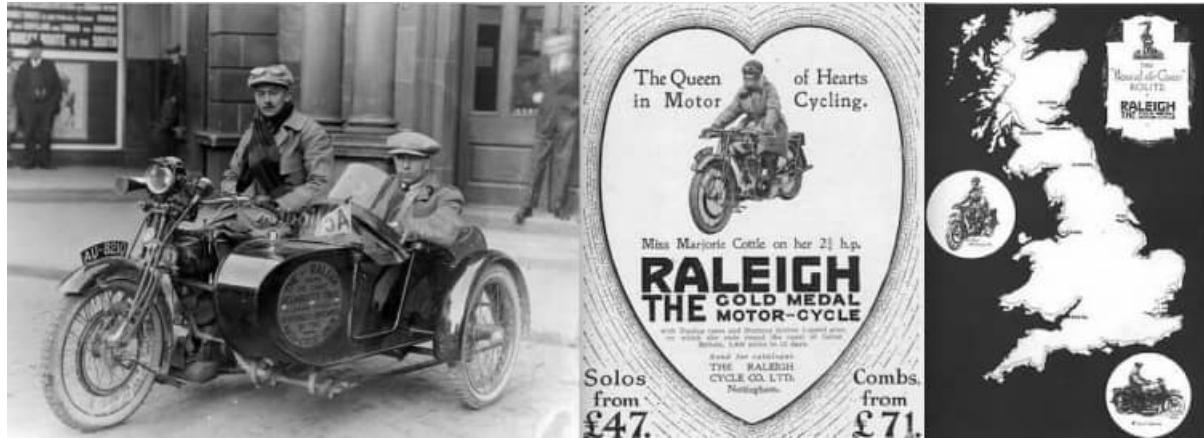
celebrate its hard-won independence from British rule the Irish Free State reinstated an ancient tradition with the Tastteann Games. Sporting events in Dublin included athletics, swimming, rowing, boxing, rounders, yachting, golf, tennis, gymnastics, wrestling, weight-lifting, billiards, chess, Gaelic football, hurling and handball but the programme also included a display of motor cycling.

COVENTRY WAS THE HOME of the British motor cycle industry so it comes as no surprise that the city was the birthplace of a new motor cycle sport. The Coventry Motor Cycle Football Club was founded by J Montgomery who, unsurprisingly, became team captain of the team. Before long they had local competition when the Coventry Ace MC formed a team and as other teams appeared further afield the first friendlies were held. Coventry played four games in that first season, winning all of them without conceding a single goal. The new sport caught the public's imagination; Pathe News was on hand to record the Coventry Aces in their first year: <http://www.youtube.com/watch?v=r6cbwJ66I0U>

JUST AS MOTOR CYCLE FOOTBALL was getting under way Northampton Town FC banned its players from motor cycling after three professional county cricketers two footballers died in crashes. One of them had played for Manchester United; the club's manager said: "My opinion of motorcycles as a means of eating the miles and making others eat their dust will not bear publication, and I endorse in every respect Northampton's rule." The Football League argued that clubs should put bans on motor cycles in contracts.

RALEIGH WON THE MAUDES Trophy with a round-the-coast stunt observed by the ACU. Hugh Gibson left Liverpool on a 798cc V-twin outfit; Marjorie Cottle set out in the opposite direction, unobserved, on a 348cc solo to cover the same route. Gibson suffered a series of setbacks. Bad roads caused the rear stand to fall and fracture, then the sidecar stand worked loose. The tappets and valve guides demanded another stop for lubrication, and after 1,700 miles the engine had to be decoked. There was another stop to sort out a blocked carb with more delays for three punctures in the sidecar wheel and two in the rear tyre. Between Ullapool and Kyle Sku

Gibson took a wrong turn and had to follow a rough track over a mountain that meant a climb of 2,700 feet and a 10-mile detour. Cottle suffered only two involuntary stops on her solo, for a puncture and a plug change. Near Oban, blinded by rain and the intensely cold wind, she crashed but pressed on. They completed the 3,429-mile run in 11½ days, finishing within 15min of each other.



Hugh Gibson with ACU engineer Arthur Bourne as official observer in the chair at the Station Hotel, Inverness during the round-the-coast run. Raleigh lost no time in advertising its Maudes Trophy win. Bourne, went on to write for *The Motor Cycle* using the nom de plume Torrens, and spent 23 years as Editor.

BOURNE WAS BACK IN THE CHAIR later in the year as ACU observer on another reliability run; this time the sidecar was attached to a 633cc Norton Big Four piloted by Phil Pike. The bike was assembled under Bourne's supervision from parts picked by him to prove it was a bog standard model. They covered 4,088 miles, comprising four end-to-end runs and 20 climbs up Porlock Hill. Bourne later reported: "What the ACU could not control was what happened at Chudleigh Knighton in Devonshire less than 200 miles from the finish. A Ford 14-seater charabanc came out of a blind side-turning straight into the sidecar and pushed the outfit across the main road and squashed it against a stone wall." Rider and passenger emerged shaken but unhurt.



Messrs Pike (enjoying a gasper) and Bourne aboard the Big Four combo; they seem to have some chums to keep them company for part of the epic trek.



Dougal

Marchant did the first 350cc ton at Brooklands aboard a Blackburne-engined Chater Lea.

THE ACU LAUNCHED THE SIX-DAY/1,000-mile Stock Machine Trial; AJS won three gold medals and a team medal. And an Ajay described as “the only fully equipped touring sidecar in the trial” was top combo.

A MATCHLESS OUTFIT won its class in the Scottish Six Days Reliability Trial.

ITALY BUILT THE FIRST MOTORWAY, between Milan and Varese.

CARLO GIANINI AND PIERO Remor left Rome University and put their brand-new engineering degrees to good use by designing an ohc four-pot engine. Industrialist Count Bonmartini was impressed enough to bankroll them; this was the first of the transverse fours that became ubiquitous half a century later. The 490cc prototype featured a single overhead camshaft driven via a shaft in front of the cylinders; power output was a claimed 28hp at 6000rpm.



Britain used to

produce its own 'motor spirit'. This newly opened fuel station, at Calborne on the Isle of Wight, offered a choice of Shell petrol, Pratt's 'High Test' petrol and 'National Benzole' which was made from British coal, though in it was often sold mixed 50/50 with petrol.

REPRESENTATIVES OF 13 COUNTRIES met in Paris for the Fédération Internationale des Clubs Motocyclistes (FICM) congress. They formally recognised the FICM in the general sporting regulations as the only body representing motorcycling activities. Germany hosted its first motor cycle grand prix on the Avus circuit in the Grunewald forest, on the outskirts of Berlin. The first Dutch TT, organised by Motorclub Assen en Omstreken, was run over a 28km paved triangular circuit near Assen. And the first FICM European Grand Prix was held in Monza, Italy. The title of European Champion (in each class), was awarded to the winners of this race as the FICM was not yet ready to organise a championship run over a series of races.



Moto Guzzi gave the Brits

a surprise—its new 500cc ohc 4-valve CV4 in only its second outing finished first and second in the hands of Guido Mentasi (Carlo Guzzi's brother-in-law) and Erminmio Violi. With 22hp on tap it could do at least 95mph—it had already tasted victory in its first race, the Lario Circuit. Now it had given Guzzi the 500cc European Championship.



Ernst Henne rode a German-built Astra at the first FICM European championship held at Monza, Italy, but the bike was powered by a 348cc Blackburne engine. Astra was only in production from 1923-25 but Henne, racing for the first time outside Germany, finished a creditable 6th and within a year was racing for BMW. He went on to set 76 world records on a BMW so we'll meet him again.

AT THE SWISS GP GRAHAM Walker's ohv Sunbeam won the 500cc class ahead of a Motosacoche ridden by Italian ace Luigi Arcangeli. TC de la Hay won the 350cc class on another Sunbeam; a Swiss Condor beat a Velo to take 250cc honours.

IN THE GERMAN GP WANDERPREIS von Deutschland Zenith beat BMW into second place to win the 500cc race.

IN THE FIRST SPANISH GP no less than five 500cc ohv Duggies led the way home; a pair of French Alcyons were first and second in the 350cc class. In the Grand Prix des Nations a brace of ohv Guzzis were the fastest 500s on the day, ahead of Norton and Peugeot.

VICTOR HORSMAN AND A DENLEY both set new hour records but before year's end French ace Pean Richard scorched round the new Montlhery circuit on a Peugeot twin, raising the bar to 88.45mph. He also rode it to victory in the French Grand Prix but could only manage 14th in the Senior TT (his team-mate R Gillard finished 11th).



Richard won the 500cc class at the French GP aboard the Peugeot, but LeVack continued his winning streak in the 250cc class (*thanks to my chum Francois for the LeVack pic*).

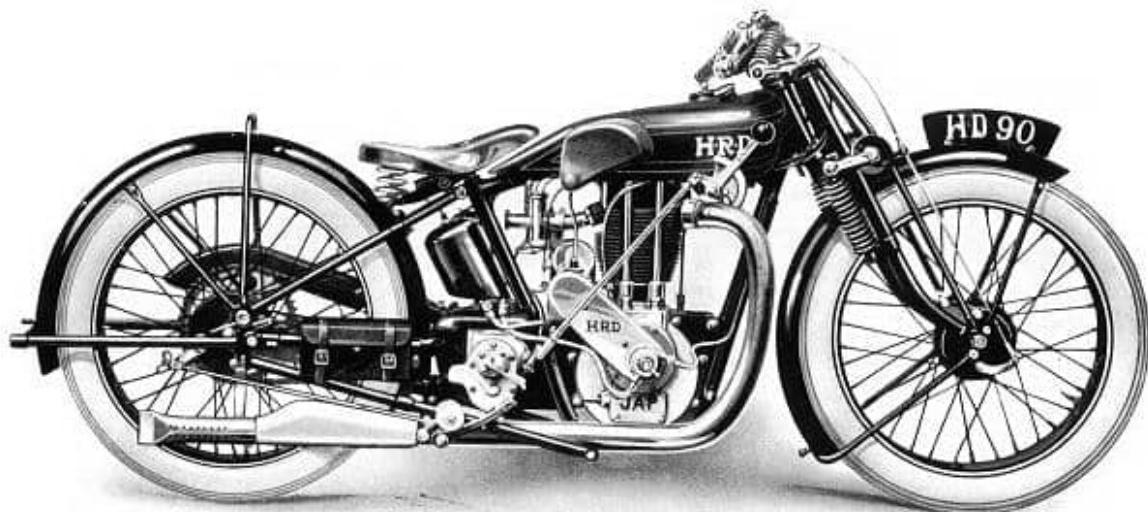


Sourdot won the 175cc class in the French Grand Prix aboard a Monet-Goyon powered by a Villiers 'Sports' engine. Not bad for a firm which got its start making three-wheelers for disabled servicemen. M&G held on to the cup for four years.



BSA launched the bargain-basement 250cc Model B. It would become famous as the ‘Round Tank’.

HOWARD DAVIES LAUNCHED THE HRD range featuring 348 and 490cc JAP engines, Burman boxes and Druid or Webb forks. The HRDs were low and sporty, with duplex frames and some of the first saddle tanks. Designer EJ Massey had built the Massey-Arran that gave AJS such a fright in the 1921 Junior TT—the year Howard had made history by winning the Senior on a Junior AJS.



Top of the HRD range was the HD90. Like Brough, HRD model names reflected their performance: a racing 500cc ohv JAP engine gave the HD90 its guaranteed 90mph (it sold for 90 guineas). The 350cc HD80 did 80mph and cost 80 guineas.



Harry Perrey led the BSA competition team up Screw Hill and to the summit of Mount Snowden.

With the R37 BMW's flat twins gained overhead valves.

THE LEINSTER MCC staged a hillclimb and Pathe News filmed it: <http://www.britishpathe.com/asset/50611/>

CAMBRIDGE GRADUATE ERIC FERNIHOUGH MA won a Varsity motorcycle race, starting a relationship with JAP that would cover him in glory.

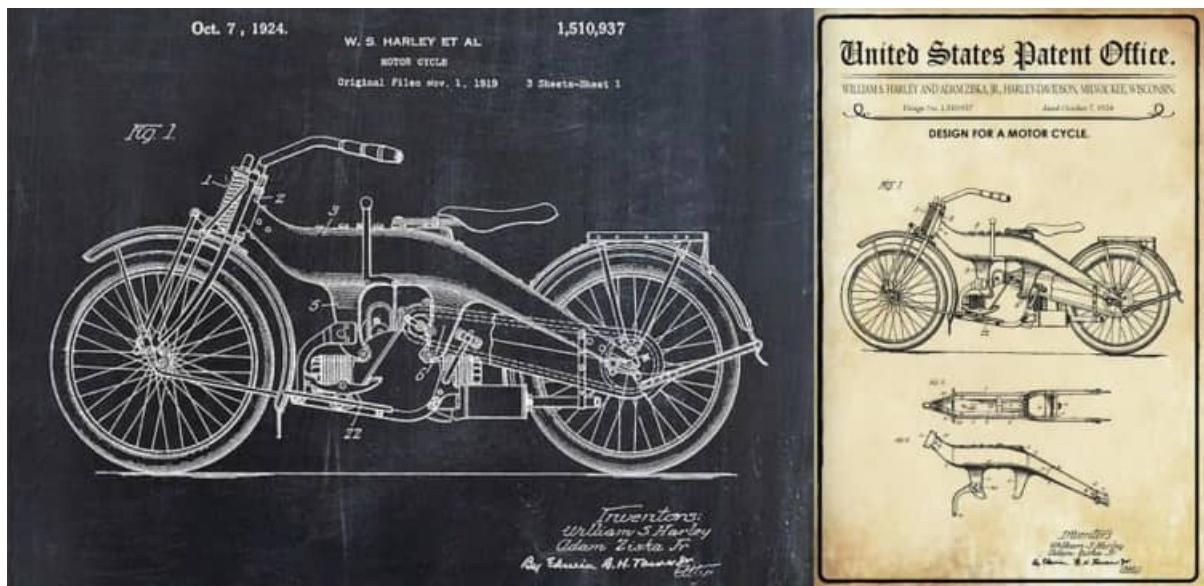
IN JAPAN THE MILITARY VEHICLE Subsidy Law allowed the government to subsidise makers or owners of motor vehicles suitable for military use, provided they were made in Japan. At the same time import tariffs were imposed on foreign vehicles. The immediate result was the entry of major industrial concerns into the manufacture of motor cycles. The Murata Iron Works built two copies of the 'pocket-valve' Harley Davidson and offered them to the army, which tried them out and returned them without comment which in Japanese society was a hugely insulting. The Imperial Army was already using imported Harleys. Toyo Kogyo (Mazda) also tried to build a motor cycle for the army and that effort failed as well. While these two companies went back to their drawing boards, Mr Shimazu, who had built the first Japanese motorcycle back in 1909, unleashed the Arrowfast: a 633cc side-valve single with three speeds and a reverse gear for sidecar work.

BARON OKURA, THE SEMI-OFFICIAL Japanese Harley-Davidson importer ordered a few 'J' models in 1922 and a few dozen more in 1923/24, but didn't buy any spares, which confused the H-D top brass. This, combined with a large order from Outer Mongolia, also without any spares, spurred Harley to send Alfred Rich Child to set up a proper dealer network. Negotiations with Baron Okura were a failure, but while in Japan, Child befriended Genjiro Fukui, US-educated and a wealthy founder of the prestigious Sankyo Pharmaceutical Company. Fukui ran an import/export division of Sankyo, the Koto Trading Co., which had been selling 'bootleg' import

Harleys, brought into Japan from the Outer Mongolian shipments, and sold under Baron Okura's nose. Child join forces and Fukui set up the Harley Davidson Motorcycle Sales Company of Japan with Fukui/Sankyo providing investment capital. As managing director Child pocketed 5% of gross sales in Japan. The initial order included 350 Harley combos (three-wheelers having been found useful as utility vehicles after the 1923 Great Kanto Earthquake), plus \$20,000 worth of spares and \$3,000 worth of factory repair tools. As Sankyo already had pharmaceutical contracts with all branches of the Japanese military, Harleys were suddenly required for all manner of police, military, and Imperial Escort duties. Japanese sales rocketed to 2,000 bikes a year.



The Milwaukee plant was kept busy building Harleys for Japan.



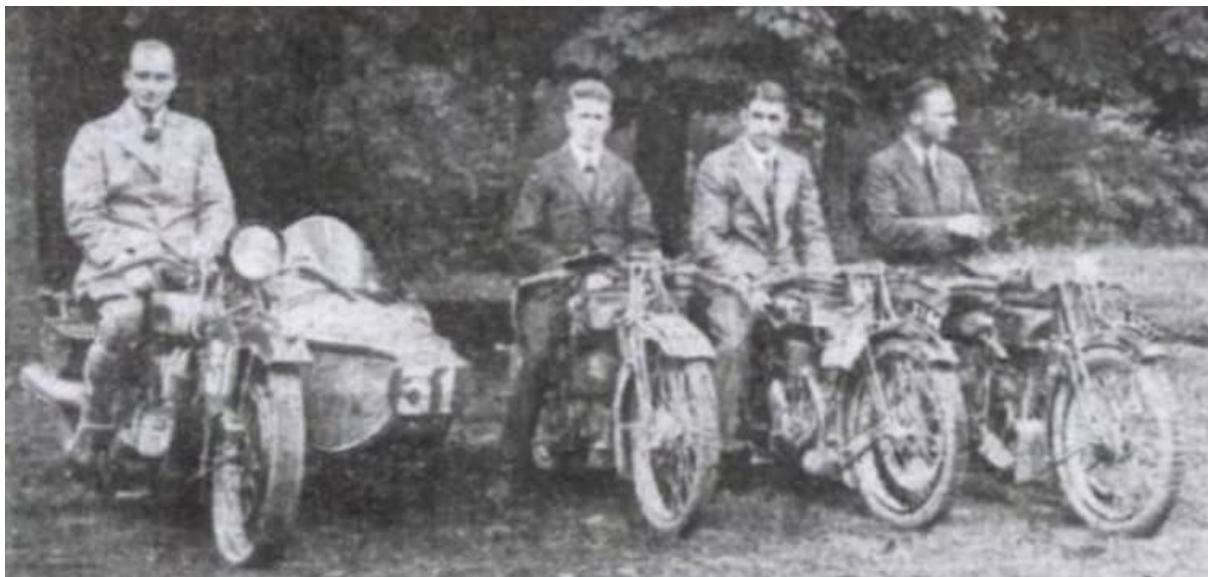
Harley's drawing office was also busy, working on a horizontal-engined single with an innovative beam frame.

THE ISDT MOVED TO BELGIUM and Britain won (on James, Sunbeam and AJS) but only on a technicality , as the Blue 'Un explained: "Britain has at last won the chief trophy in the International Trials, but it must be admitted that the victory has been an empty one. A Norwegian team has made the best performance, but since the Norwegian riders did not use machines made in their own country they were only eligible for what was known as trophy Number II. A Belgian team on Belgian machines also made a better performance than the Britishers—who lost their sidecar man, FW Giles (348cc AJS) , on the last day—but the Belgians were ineligible because their trio did not include a sidecar diver. Everyone agreed as to the severity of the contest, but Stobart, who a few years ago rode a James in English competitions, now is attached to the Saroléa firm assured The Motor Cycle that the organisers had by no means selected the worst roads; in fact, the surfaces were not nearly so bad as in the recent Tour de Belgique, when, on one occasion, he stuck a pothole with such violence that the machine came down on the stand and smashed it. Discussing the event with the competitors, the writer was reminded that when he described the 1921 and 1922 International Six-Day trials, he referred to the beautiful locality in which they were held as the country of the graceful chamois. According to Clifford Wilson, Belgian is the country of the disgraceful chicken! Wilson said he would best remember the country for its chickens and its pavé. At one point a scared chicken volplaned onto Wilson's shoulder so that his steering was deflected to such an extent that he left the road and found himself behind a tree which flanked it, there to meet B Kershaw (J&S Omega) who had arrived at the same spot while trying to avoid a cow. Two kinds of pavé exist, good and bad. There is quite a reasonable amount of the former, much of which is preferable to the pot-hole-riddled macadam, and more than one likes of the latter, especially in the Tournai-Charleroi district, the manufacturing centre of Belgium. Had it been the task of Englishman to arrange this trial in Belgium they would have chosen the Ardennes district and stuck to it; for there is really beautiful hilly country was good roads. But the Belgians who organise the events chose differently. It must be remembered that the Fédération Motorcycliste de Belgique is not exactly like the Auto Cycle Union, a union of happy concord whose clubs work in complete harmony with



"Entrance to the 'official garage' which compares rather badly with Scarborough's Floral Hall, used for the same purpose in the English event this year."

the parent body. In Belgium the provincial clubs have to be placated and encouraged, and it would not do to neglect districts in which loyal clubs exist and flourish; consequently, tracts of flat and uninteresting country have to be visited and that is why distances have been long—well over 200 miles per diem—through lengthy stretches of flat and thickly populated country where many level crossings have added to the difficulties, especially in view of the high average speed which had to be maintained. Even if the whole of the course had been entirely flat, which it was not, the necessity of averaging 30mph plus the bad road surfaces would have provided difficulties enough. Three of the six days have not only been in hilly country but there have been a few real test hills quite of the type the ACU loves to find. Vieux Tiers, at the end of the fifth day, was rough and winding, with a gradient of 1 and 5 at least, and Vieux Polleur, on Saturday, not so windy nor quite so long but if anything a shade steeper, was marked 'forbidden to automobiles', and worth of all, the speed hill climb up the three-mile Côte de Malchamps, leading out of Spa, did enough damage to justify its existence in all conscience, for it wiped out England's best hope, the gallant Giles, whose plucky little 348cc engine had taken him and his wife in the sidecar through a whole week, and had had at times to average after 40mph. It also eliminated Huynen (FN) of the Belgian team, who crashed while trying to avoid a dog, and Bonivert (Saroléa), whose engine gave out on the hill. It was surprising, but none the less the fact, to hear an English writer affirm that the Norwegian team and the one Swede—Göthe (Husqvarna-JAP)—were the most skilful riders on the corners, and it was most pleasing to hear a tribute paid to the good sportsmanship of the Dutch. At half distance the British team was in the running for the International Trophy, as Belgium, which could have qualified, failed, curious to relate, to find an entrant with a sidecar. Three teams had entered for Trophy No II, namely Belgium, Norway and Holland; and Great Britain entered for both trophies. Holland's casualties had been serious, and the teams of Great Britain, Norway and Belgium were left intact at this stage. Furthermore, on the second



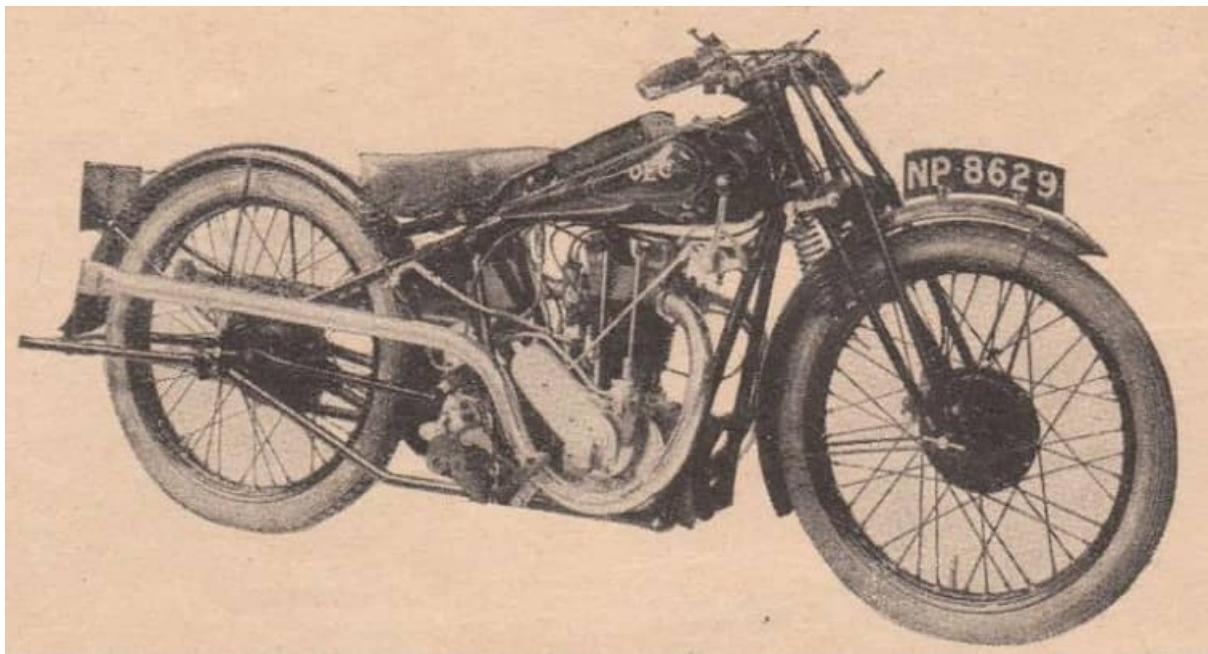
"British riders RC Charlesworth (Zenith 976cc sidecar), Bert Kershaw B&S (Omega 348cc), Clifford Wilson (Sunbeam 499cc) and GS Arter James (James 496cc)."

day, when the competitors toured the manufacturing districts, a great deal of trouble was experienced. Kehoe, the British rider included in the Belgian list, had fallen the night before, damaging his rear wheel and had arrived somewhat shaken; undaunted, he started next morning, only to find himself compelled to retire immediately. Then the bad roads caused the breakage of Charlesworth's (Zenith) rear sidecar connection, but he cleverly strapped up the attachment and continued till the end. B Bourke (New Hudson) rode in still smiling after an accident caused by striking a huge hole when trying to avoid a milk cart drawn by a pair of dogs. His pluck was greatly admired, especially when he announced he would start the next morning, but the damage was too serious and he was forced to retire after striking another pothole when driving in Giles' dust. Muller (Velocette) had a fall 51km from the finish, bent his footrests, cut his head, and could not start on the Thursday. Thursday is a day which will live long in the memories of the International Six Days competitors, as they journeyed through the grand Duchy of Luxembourg and enjoyed some of the finest scenery on the trip. On the Friday they passed through Haelen, where exactly 10 years ago the gallant Belgian cavalry fought a desperate and costly battle against the German hordes, and held up their advance for several days. The town was en fête. Then they entered Dutch territory and had a welcome they will never forget. They lunched at the pretty little town of Oisterwijk, and finished the first stage in the charming market-place. Here were motor cyclists in their hundreds,



"Scene at one of the checks (Oisterwijk) in Holland."

many mounted on British machines. Two bands met the competitors, and discoursed sweet music all through the luncheon stop. Boy Scouts and amiable policeman kept the roads free, but were beaten by the inevitable dog which always strays on the course on these occasions. At lunch the junior Dutchmen presented each competitor and official with a packet of highly artistic postcards and announced that they had only to address them to their friends and relatives and the KNMV would see to their postage. Riders of all the five nations present cheered when a Dutchman courteously presented a bouquet of flowers to Mrs Giles, the only lady passenger, on her arrival in her husband's sidecar. All too soon the Dutch frontier was left behind, and as the short stretch of neutral country between the customs houses was entered, a banner stretched across the road wished departing guests 'Farewell and Good Luck' in French and English. At the Belgian Customs House douaniers busily examined the machines' engine numbers, but exacted no other formalities. Here 'Nuit et Jour' (night and day) the be-pseudonymed Belgian rider of a Rush-Blackburne, arrived with a clatter and fell off. He had done this frequently and his damaged foot rests were circumstantial evidence. The devoted band of officials of the Belgian Motor Cyclists' Federation undoubtedly put in an enormous amount of hard work both before and during the competition; but, though they meant well, they lacked experience in the organisation of a contest of such international importance. The last day, which entailed another tour in the beautiful Ardennes country over the best roads so far encountered in the trials, saw the undoing of several gallant and important riders. FW Giles (AJS sidecar), on whom the continuity of the English team depended, retired through engine trouble on the three-mile hill of Malchamps out of Spa. It was a sad disappointment, not only to Giles himself, but to all the English present, but the high average speed which had to be maintained on the rough roads brought him disaster. Then an evilly disposed dog caused Vidal (Saroléa), one of the Belgian team, to crash heavily, and he retired somewhat injured, and, lastly Bonivert (Saroléa) retired at the same place through engine trouble. These misfortunes left only the Norwegian team intact, and the Belgium team in front of the British. Even if Giles has not had to retire the British team would not have been leading. The speed hill-climb, in which GE Stobart (Saroléa) made the fastest time, on the final day penalised the competitors heavily." Team awards: International Cup, Great Britain, GS Arter (499cc James), C Wilson (499cc Sunbeam) FW Giles (348cc AJS sc). International Cup No II, Norway—C Vaumund (499cc Triumph), O Graff (550cc Husqvarna), J Juberget (999cc Harley-Davidson). Belhium, de Grady (348cc FN), Vidal (499cc Saroléa), Huynen (348cc FN). Trade teams, 1, Saroléa (Vidal and Stobart); 2, FN (de Grady and George).

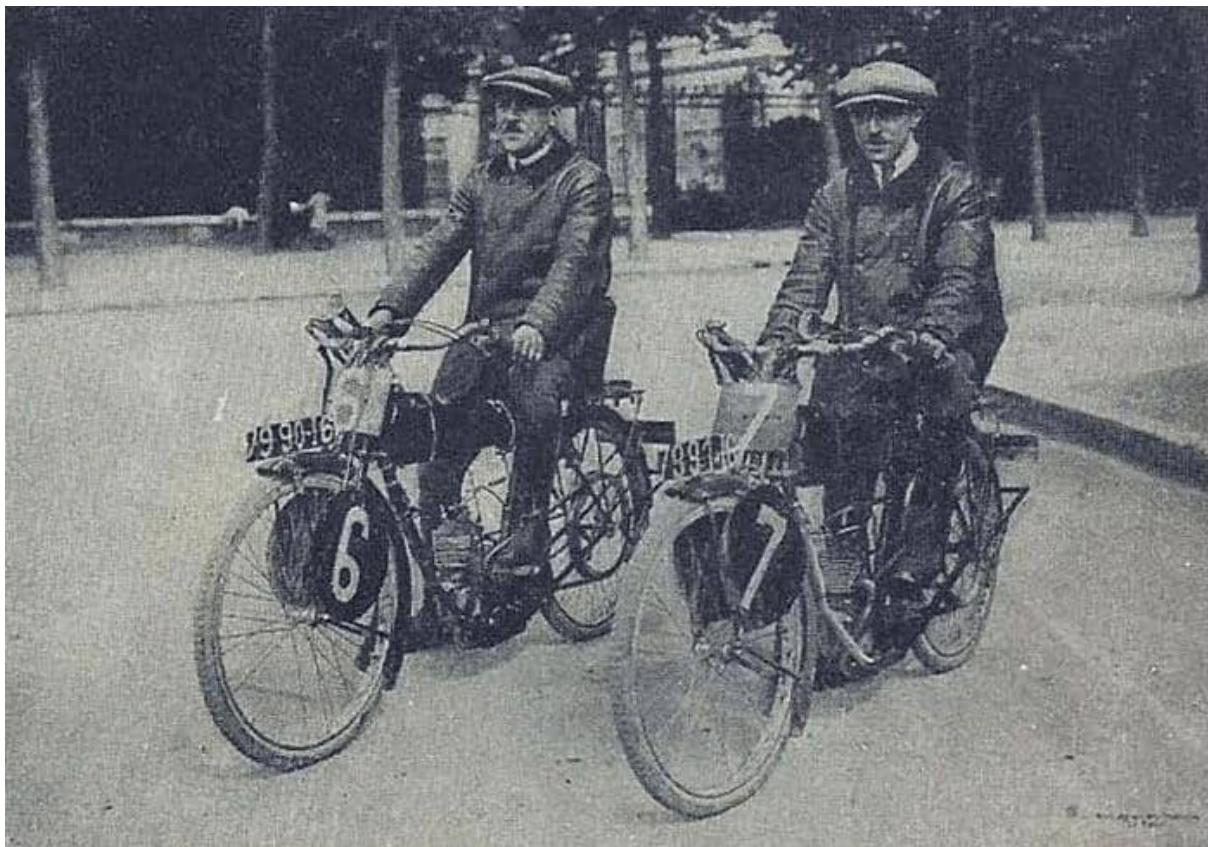


OEC was one of several marques to use the 350cc DOHC JAP.

Courtesy of my chum Francois, here are a couple of contemporary sporting pics followed by a selection of some Continental ads...



M Lambert with the BT he rode in the Tour de France.



Messieurs Douet and Brunet, pictured during the Velomoteur-Club de France's 100km cup race. They tied for first place in the 100cc class.



It seems motor cycle-themed birthday cards are nothing new. However this seems to be a memorial card; presumably for one of so many young enthusiasts who came not home from the war.



A tiny tot tops up his mini combo while his little friend looks on admiringly. Bless...Mind you, the venue is Berlin so chances are that 15 years later he was riding into Poland on a KS750 Zündapp equipped with a sidecar and an MG43.

To close the year, some contemporary ads...



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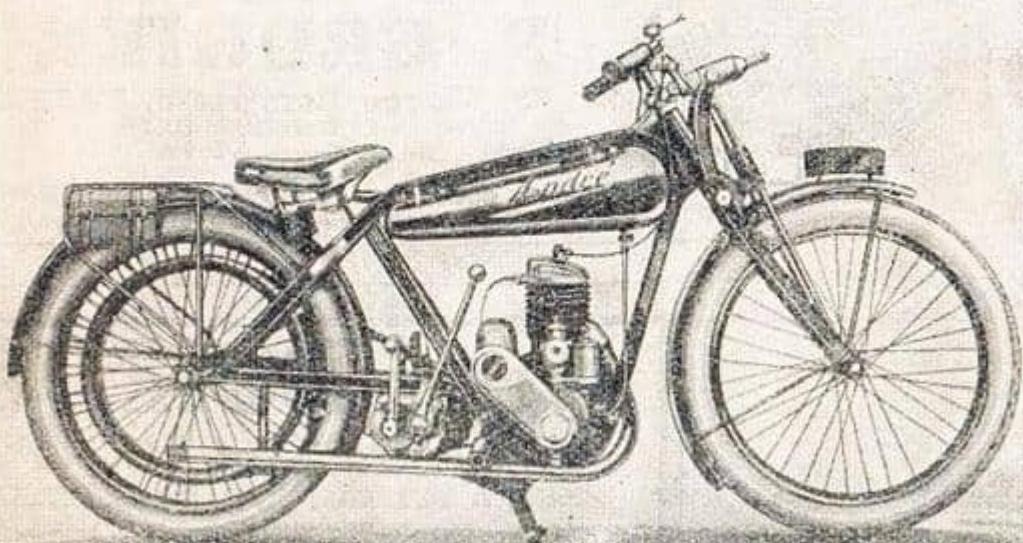
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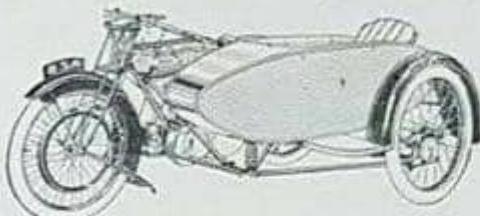
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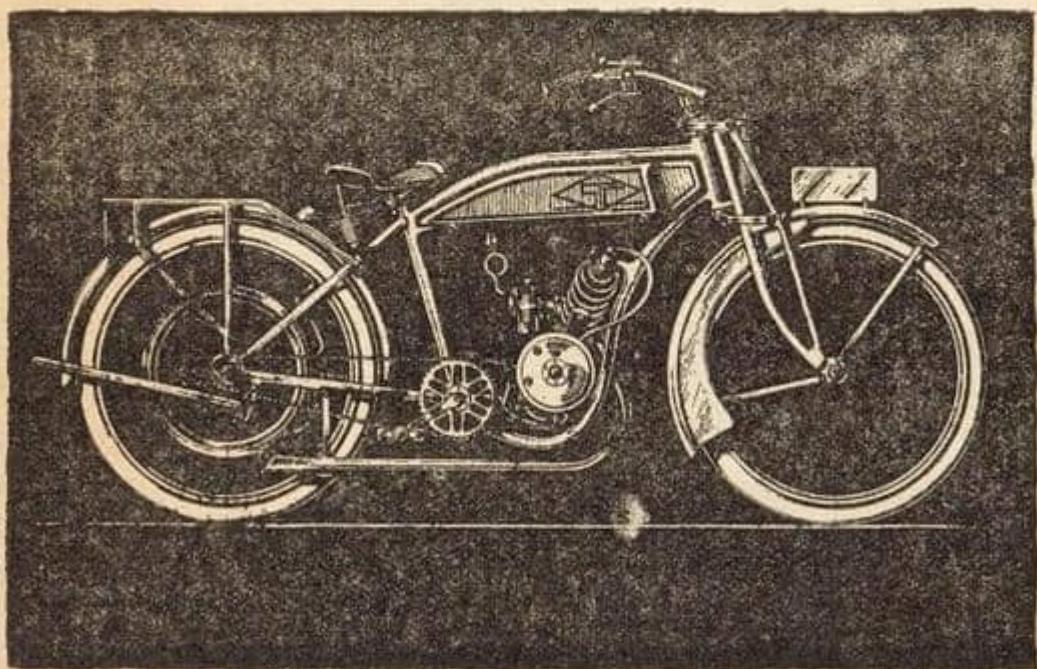
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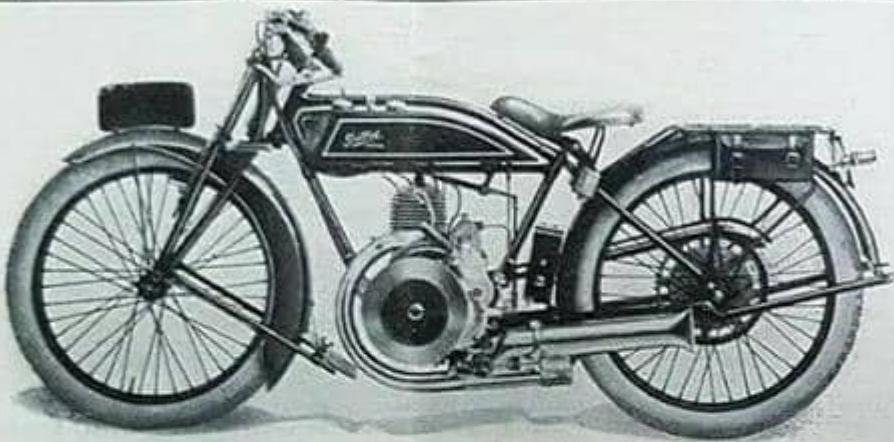


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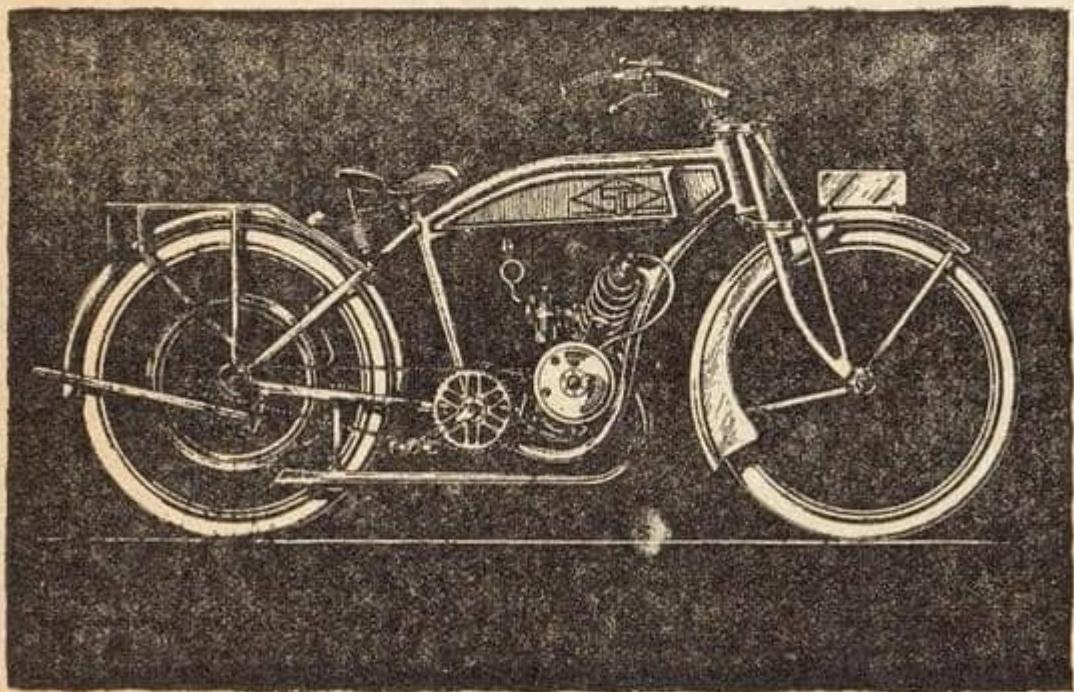
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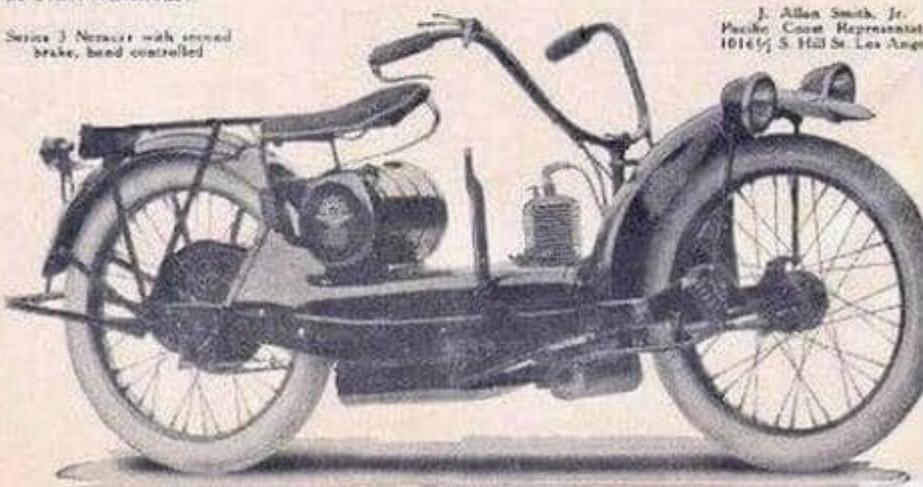
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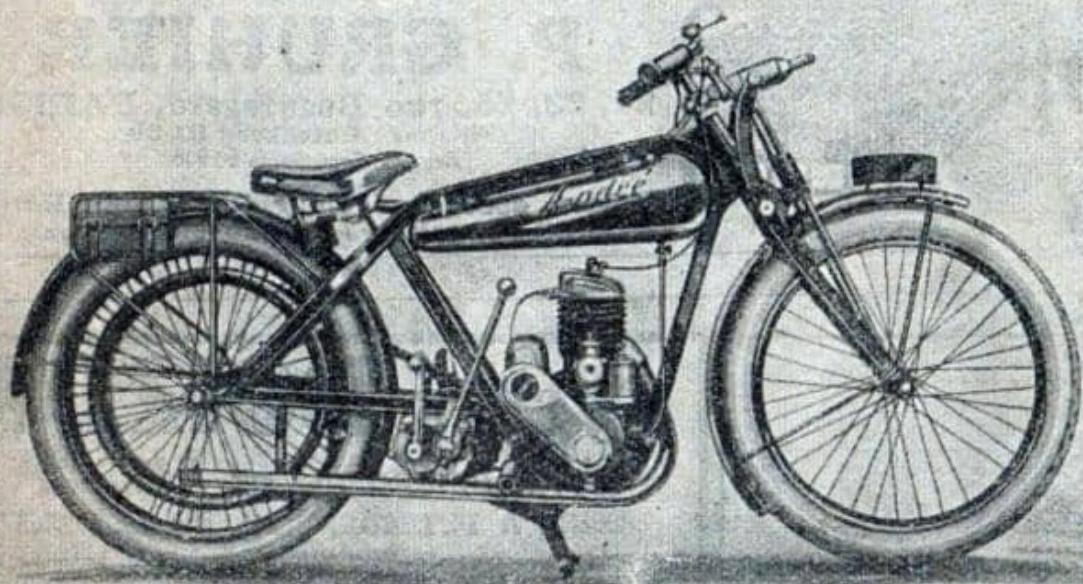
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